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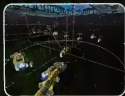
Mothership under attack.

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F I C T I O N

D E P A R T M E N T S

COVER: In the shadows of a Picasso, robot comforts human in the aftermath of a devastating war. Art by Royo. **ABOVE:** John Berkey is but one of many master artists collected by Jane and Howard Frank. For further information on the Frank Collection, see Gallery on page 70.

6 EDITORIAL

An imagination is a terrible thing to waste.

8 LETTERS

Readers salute the New Wave, *Babylon 5*, and the resurgence of short story collections.

12 BOOKS BY PAUL DI FILIPPO, JAMES LOWDER AND RACHEL RUSSELL

Kim Stanley Robinson adds one more volume to his already impressive Martian trilogy.

20 TELEVISION BY MICHAEL MARANO

Forget Generation X—Generation SF turns the dial at the turn of the Century.

24 ALTERNATIVE MEDIA

Your guide to the best new SF games, audio, comics, collectibles and more.

26 SCIENCE BY GEOFFREY A. LANDIS

Looking backward, one must be as forward-thinking as when looking at the future.

70 GALLERY BY JOHN GRANT

Discover the dazzling art collection of Howard and Jane Frank, a SF treasure trove that is a work of art itself.

82 GAMES BY ERIC T. BAKER

SF's finest gaming franchises build themselves bigger and better battlefields.

90 INTERNET BY CORY DOCTOROW

A selection of Net-based Science Fiction diversions.

32 WHAT IT IS

By Robert Reed

Living in the past can be a terrible thing, or so the experts say. But sometimes, living in the future can be worse.

36 HE'S ONLY HUMAN

By Lawrence Watt-Evans

Ever since Roswell, humans have wondered whether aliens walked among us undetected. But what is it that the aliens wonder?

39 ENGINES OF CREATION

By Jack Williamson

Readers picked "Terraforming Terra" as our best novelette of 1998. Now Jack Williamson returns to try to save planet Earth one more time.

56 PHALLICIDE

By Charles Sheffield

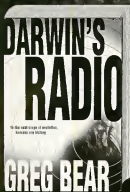
With her mastery of science, Rachel Stafford could save the world. But could she save her daughter from the tenacious grip of the Blessed Order?

76 TEXTURE OF OTHER WAYS

By Mark W. Tiedemann

When we finally talk to the aliens, we'll need to be a little bit alien ourselves.

Has the Human Race Reached the Finish Line?



**"STAGGERING...SOME OF THE BEST SCIENCE FICTION I'VE READ
IN YEARS. READ IT AND WONDER!" —Anne McCaffrey**

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An imagination is a terrible thing to waste.

MY RADIO OFTEN TALKS TO ME AS I drive to work—I prefer the sound of voices to that of music as I maneuver around the Washington Beltway—and often what it has to tell me brings me to the edge of despair for the future of the field we love, in fact, for the future of all imaginative endeavors. The conversation I overheard this morning was between a caller who was sure that her daughter was being taught about devil worship because of a passage in a novel in which a character was holding a seance, and the radio talk show host who agreed that it was indeed a terrible thing for the school to be teaching children to practice magic. Other mornings I listened to misguided politicians who insisted that were it not for violence in films such as the recent hit *The Matrix*, the tragic events in Littleton, Colorado would not have occurred.

These people are seeking easy solutions to complex problems that, unfortunately, have no easy solutions, and I fear that we, the lovers of the fantastic, will be paying for it. My answer to those who are looking to place such blame on us is a paraphrase of the words used by supporters of the right to bear arms, the one that goes, "Guns don't kill people. People kill people." As for my adapted version of this, I contend that: Books (and movies and TV shows and comics and music and video games and whatever the scapegoat du jour happens to be) don't kill people. *People* kill people.

Not only are the fatal few outnumbered by many tens of millions who remain peaceful regardless of the imagery that permeates their environment—which tells us that joysticks and trenchcoats are not in and of themselves creating a legion of monsters—but there is also the fact that murder existed long before computer programmers came up with *Doom*. Cain killed Abel out of envy, without benefit of such 20th Century inspirations as Marilyn Manson or horror novels egging him on.

I am a member of that silent majority who, without negative effect, have inhibited from the fictional well that supposedly causes violence. I've read and reread comic books until they crumbled in my hands. I've played *Dungeons and Dragons*. I've read Stephen King and inhaled *Famous Monsters of Filmland*. I grokked *Stranger in a Strange Land*. These elements of our cultural iconography washed over me without the dread outcomes that the censors fear. I survived high school unscathed. All of the ingredients that supposedly send people down the path of violence went into my make-up, and yet, I've turned into a functioning member of society, able to distinguish

clearly between *fantasy* and *reality*.

The current climate of blame has been simmering under the surface all along. It differs only in volume, not in tone. Today's enemies of the *fantastic* have always been after us. Before students began shooting other students, there were those who tried to ban the playing of *Magic* or the reading of certain novels of Jane Yolen or Bruce Coville. The imagination is ever under attack, and today's school tragedies add to the censors' arsenals an ammunition that might help them succeed in their aims. But that still does not make them right.

All past attempts to clamp down on the creative impulse have failed. By failed I do not mean that government or industry interference has not for a while succeeded in changing the way that writers and editors, artists and filmmakers, have gone about their work. What I mean by failure is that the intended goal of changing human behavior has never been met.

When Hollywood introduced the the Hayes Code in 1930, its limitations on sexuality and violence did not alter the way people lived. Toning down what appeared on the screen did not tone down the tenor of the times. It never does, because the screen is only the mirror, not the instigator. When Fredric Wertham attacked comic books as creating a nation of juvenile delinquents, it spawned a Senate investigation of the industry that led to the formation of the Comics Code in 1954. Yet the protecting enshroud of the Code—with its insistence that good must always be seen to triumph over evil—did not cause youth crime to vanish, because comic books were never the true villain to begin with.

As with Prohibition, all such legislative attempts have failed. And all future attempts will fail again. There may be success in the passage of laws, but once more, as ever before, human behavior will go on. That is because the fingerpointers want to believe that violence in real life is caused by violence in art, when it is and has always been the other way around.

We all know the causes of crime, and what changes must be made in the human condition to eradicate it. We must deal with the difficult issues of poverty, racism, mental illness and other ills that we don't have space to go into here. These things will not go away with V-chips or new rating systems or the postponement of episodes of *Buffy the Vampire Slayer*.

Art does not create the problems of life; it only depicts them. No one should think they've bettered the world simply by blaming the messenger.

Scott Edelman

SCIENCE FICTION AGE

VOLUME 7

NUMBER 6

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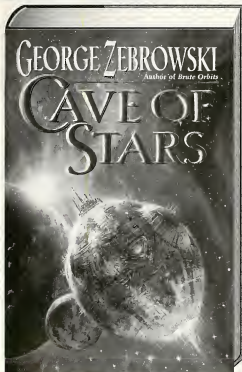
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Dear Scott Edelman:

Thank you for publishing "Shiva" by Barry Malzberg in your May '99 issue. It was great to see one of the masters of New Wave SF in your magazine alongside some of the newer stars of the SF firmament. I also liked your coverage of the end of *Deep Space Nine*—it combined the literary and media SF experiences in a way that is unique to your magazine.

I also enjoyed, as always, the Games column by Eric T. Baker, but I wonder if the guy should get a little more room, or maybe a feature article every so often. He always seems to have more interesting things to talk about than he can possibly cover.

Don Krashin

Dear *Science Fiction Age*:

The salutation above is because I am finally writing to many of the writers involved in putting together your wonderful publication.

First, I am with Pete Blackwell, who suggested to Scott Edelman that the matte-finish paper used in the fiction section is easier on the eyes than that in the color section. I'm sure that I am not the only reader with bifocals who has to wrestle with light and page angles.

Next, may I compliment your book reviewers on including so many short story collections. This is my favorite format, having had to read on my lunch hour when I was working as a librarian. On receiving each issue, I always turn to the reviews first, and am rarely disappointed. I especially enjoy multi-author collections in a specific theme, although it is also great to have collections of early stories that were published before I could afford to buy books. Keep up the good work, all of you!

Finally, I, too, am saddened by the end of *Babylon 5*. When it was first broadcast, it was advertised as a finite series, to last only for five years. I have heard people say that was a publicity gimmick, based on the number of episodes needed for syndication. However, it is much better to know that a series will end at a certain point than to have it die a lingering death due to the whims of cast, network, or audience.

Also on the subject of *Babylon 5*, for me one of the most memorable scenes in broadcast Science Fiction was in an early episode in which there was a conflict of religions. Representatives of each race or ethnic group on the space station were lined up to explain their beliefs. Although I usually prefer a little "hard" science in my Sci-Fi, to me this was a most moving and meaningful scene. If

a drama is worth seeing more than once, it must be way above the average. *Babylon 5* is such a series.

Thanks for reading my musings, and thank you for an "above the average" publication.
Nancy Rodich Hodges

Dear Mr. Edelman:

Mr. Boutillier wrote a thoroughly informative article [Television, March 1999], but he did not seem to complete his research. While Philip K. Dick's short story may be the basis for the new *Total Recall* television show, and probably had an influence on the movie, the *Total Recall* movie starring Arnold Schwarzenegger used the characters, storyline, and basic plot of the Piers Anthony novel of the same name. Piers Anthony's science fiction is not as well known as his fantasy, but it is out there.

Your writers should perhaps do their homework a little better.

Jesse Woods

The truth of the matter is that the film was not influenced by the Piers Anthony novel. Rather, the opposite occurred. We mean no disrespect to Anthony, but his book was a rehashing of the existing film script, meant to tie in with the film's release, and not the originator of the film's storyline.

Dear Scott:

I have taken note of your kind words regarding *Babylon 5*. That is my main reason for writing to you. I remember you saying something about talking to your friends about *B5* till their eyes went glassy.

I'm here to tell you, mine never would. For, like you, I'm a huge fan of *Babylon 5*. In fact, fan is too light a word. *Babylon 5* became a part of my heart and soul, like no other show ever has. I cut my eye teeth on classic *Trek*, have done eight years of fan club work for *Alien Nation*, and some other shows have become special to me, but none like *Babylon 5*. It was as perfect a show as could have been crafted for me. From the characters, such as G'Kar, Capt. Sheridan, Garibaldi, Dr. Franklin, Delenn, Londo, the adrenaline rush I'd get from just watching new hours, to the subtexts and meaning laden within by Joe Straczynski, well, it really touched my heart and yes, even gave me reason to live. Learning to live without it is very hard.

I totally agree, *Babylon 5* was and still is the best science fiction show that television has ever been graced with. It has set the bar

pretty high. I never liked *Star Trek: The Next Generation* or *Deep Space 9* or *Voyager*. They're first-class bors to watch and *Babylon 5* rises above them like a mighty tower. I don't think a lot of people understand *B5*'s subtext, but as JMS has said, it's about the power of one person to change things, about choices, consequences, and responsibility, and mainly to have hope in the midst of the greatest darkness. I know—I dwell there. *Babylon 5* tells me to keep on against all odds: its discourses on politics, religion, and chaos vs. control are mature, informed, and stimulating. Joe said he wanted to cause barfights. But there is so much there, and it's sad that more people can't "get it." I am lucky that I did. And was blessed and privileged to have it enter my life. It kept me going for two very rough years (and things still are) and I must try to keep the lessons it gave me alive.

Watching "Sleeping in Light" was excruciating for me, the hardest fiction show I've ever had to watch. I just dissolved in tears. I sobbed in my mother's arms. Couldn't see the screen. I went over and placed my hands on the cold glass of Sheridan's face as he left us. When *B5* exploded, part of me went with it. It shattered me. But *B5* is in my blood, bone, heart, and soul for as long as I live. What a peak experience. As intense as a million suns it burns in me yet.

Take care and may G'Quan light your way.
Connie Colvin

Dear Scott:

I found the fiction in the March issue erratic. The Sheffield was up to his usual high standard, but the Dedman was mostly a (long) waste of time featuring cardboard villains and a predictable plot. The premise also made me uncomfortable. Reverse the situation to "black supremacists" or "Chinese supremacists" and talk about lightening their skin and I suspect the story would be unobjectionable.

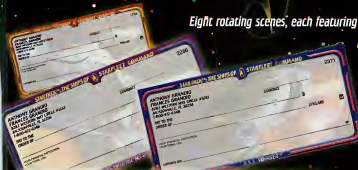
By the way, the Gallery is my favorite part of your magazine. Hope you continue it. You might consider Thomas Kidd for a future issue.
Chuck Temple

We already ran a Thomas Kidd Gallery, back in our November 1995 issue. And don't worry, we also love the Galleries, and wouldn't think of getting rid of them.

Readers—please let us know how we're doing at: Letters to the Editor, Science Fiction Age, 11365 Sunset Hills Road, Reston VA 20190. For e-mail, use scottdelman@erols.com.

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Kim Stanley Robinson adds one more volume to his already impressive Martian trilogy.

THE LAST TIME WE SAW A BOOK ANYTHING LIKE Kim Stanley Robinson's *The Martian* (BantamSpectra, hardcover, \$24.95, 336 pages) was in 1982. That year brought us Gene Wolfe's *The Castle of the Oyster*, subtitled "A Book about The Book of the New Sun," a compendium of cutting-room-floor fiction and follow-up essays relating to Wolfe's popular quartet. At the time, I found Wolfe's fifth wheel on his late-model Severian vehicle highly fascinating, offering insight into his creative methods and sidelong glances at the characters and milieu. But I had to simultaneously acknowledge that the book was almost impenetrable by anyone not already fully conversant with the series.

Robinson's newest book both suffers and benefits from the same circumstances. It has a large built-in audience consisting of all those who enjoyed his award-winning trilogy—*Red Mars* (1993), *Green Mars* (1994) and *Blue Mars* (1996)—but it presents a formidable wall to any newcomer hoping to gain entry to the dense and captivating future of terraformed Mars that Robinson previously created over the course of some 1700 pages. I hate

to be so dogmatic, but no one should start Robinson's saga with this book. Given this dictum, much remains to be said about *The Martian*. First off, readers might like to know that this hefty volume contains a whopping 25 selections, ranging across a wide spectrum: full-blown stories; vignettes; a "reprinting" of the Martian Constitution followed by scholarly commentary; abstracts of scientific papers; poetry; myths; and in the ultimate selection, "Purple Mars," the depiction of a slice of Robinson's own life during the composition of the trilogy. If there's an inventive angle from which to examine his previous Mars trilogy that Robinson hasn't taken, I'm unaware of it.

It seems to me that a book of this sort can do several things. It can refine and deepen incidents and personalities we've already become familiar with. It can explore venues and eras and characters that did not fit into the original scheme. It can extend the action back into the narrative past or into the future, beyond the opening and closing volumes. And it can even contradict canonical events. Robinson does all of these except for leaping outside the span of years originally covered. We learn of no incidents prior to the opening of *Red Mars* or past the close of *Blue Mars*, and this is a minor disappointment to me. But what Robinson does choose to do, he does with verve and ingenuity.

In stories such as "Coyote Makes Trouble" and "Keeping the Flame," well-loved characters resurface in previously untold adventures. In the former story, Coyote, the Thriadic stowaway who qualified as the Hundred-and-First original settler, shows more of his trademark stealth during one of Mars's revolutions. In the latter story, Nigak, part of the first generation born on Mars, encounters two hermits who shed some light on the power politics of his parents' time. Both these stories succeed in adding a shinier gloss to the larger portraits. But a piece like "Jackie on Zo" illustrates the dilemma Robinson faces. As Jackie Boone reminisces about her wayward semi-estranged daughter, Zo, any seasoned reader will be feeling her heartstrings pulled, since such a reader knows that Zo died tragically young in a glider accident. But if a novice reader will be baffled.

The strategy of introducing some new characters in order to convey alternate viewpoints is perhaps the backbone of this book. Our major new acquaintance is Roger Clayborne, not related to either Ann or Peter Clayborne, two folks who played such a large part in the trilogy. We first encounter Roger in "Exploring Fossil Canyon," where he is a trail guide who initiates a love affair with one of his charges, Eileen Monday. Much later he next resurfaces in "Green Mars," the tale of a daring ascent of Olympus Mons. "What Matters" introduces Roger to his namesake Peter. And finally, "A Martian Romance" reunites Roger and Eileen. Totalling roughly half the wordage of this volume, Roger's saga could almost stand as a short novel on its own. Two further series introducing newcomers—"Arthur Stembach Brings the Curveball to Mars" and "Sexual Dimorphism"—al-

BELOW: Kim Stanley Robinson invites us to once more tread the sands of Mars. Art by Don Dixon.





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flesh out everyday life on Robinson's Mars.

The strangest tactic taken in *The Martian* is the use of "counterfactual" stories, one of which opens the book, a placement which perhaps might convey the wrong idea to the reader about the book's ultimate intentions. "Michel in Antarctica" details the testing undergone by the Martian expedition candidates at the South Pole prior to their prospective departure. But we are shocked when the story ends with a Presidential decision to cancel the Mars mission! What gives? "Michel in Provence" follows up this alternate version of events, illustrating, I suppose, how all history is contingent on any number of factors, trivial and large.

We learn much valuable additional information about the planet itself here, perhaps the lead character after all. Just as the trilogy focused as much on people as areology, despite titular insistence otherwise, so does this slightly misnamed volume grant equal time to the landscape, which the supremely well-versed and personally outdoorsy Robinson conveys with brio and love. In the end, Robinson's own version of Tolstoy's *The Sunflower* (1977) provides a rich dessert for those already hooked on his Martian banquet.

Paul Di Filippo

Ender's Shadow by Orson Scott Card.

Tor, hardcover, 352 pages, \$24.95.

Having concluded the sequential saga of Ender Wiggin in 1996's *Children of the Mind*, Orson Scott Card has resorted to literary sleight of hand to add another book to the popular series. In *Ender's Shadow*, Card revisits the events of the series' first novel, *Ender's Game*, but from the point of view of a supporting character.

For the protagonist of *Ender's Shadow* Card selects Bean, a memorable but previously underdeveloped commander in Ender's army. From life on the streets of Rotterdam, we follow the diminutive genius to Battle School, where he prepares alongside other specially chosen children for war against the insectlike aliens known as Buggers. Because Bean, like Ender before him, is younger and smarter than many of his lunch group, he finds himself constantly compared to the already legendary older boy. These comparisons prompt Bean to study Ender, and Card deftly utilizes Bean's increasingly sophisticated conclusions about his imperfect twin to exemplify the boy's growing maturity.

Filtering the plot through Bean's point of view also affords Card the chance to redefine incidents from *Ender's Game*. The conflict between Ender and Bonzo Madrid, for example, is recontextualized through Bean's experiences as a homeless child in Rotterdam as a typical street fight, a clash between sav-

agery and civilization. At the same time, the theme of loyalty and betrayal attached to the conflict in the original book is both reaffirmed and strengthened. The depiction of Bean's powers of deduction is similarly well handled. Card carefully distinguishes the youngest commander's incisive intellect from that of his fellows, detailing how he rises above even the Battle School's most talented students in matters of the mind. In part, Card manages this not inconsiderable feat by allowing Bean to steadily uncover and confirm the secret about the battle games that is revealed in the final pages of *Ender's Game*. For first-time visitors to the Ender universe, the uneasy reactions of Bean's teachers to his detective

work is enough to let them know he is unearthing remarkable things. At the same time, readers familiar with the original novel will not knowingly as Bean adroitly ferrets out the real purpose of the school and the games. It's a clever and sophisticated use of audience expectations that succeeds brilliantly throughout the book.

While Card manages to keep the plot of *Ender's Shadow* clear and accessible to even those readers unfamiliar with *Ender's Game*, the restrictions he places on his narrative voice leaves the character of Ender himself too vague. Even Bean is told more about Ender than he witnesses firsthand. What he sees is enough to spark his speculations about the elusive figure, but we're never allowed a glimpse into Ender's thoughts or a definitive scene that would confirm Bean's conclusions.

Other shortcomings are more obvious, but less serious. A subplot focused on the hunt

for Bean's origin by the nun who raised him up from the streets and the resulting debate about his humanity loses steam by the conclusion. Bean's insights into his own character eventually settle the debate for the reader, but the character of Sister Carlotta seems abandoned prematurely, her quest left unresolved.

Throughout *Ender's Shadow* Card's writing is crisp, his examination of moral crises insightful, his characters compelling and clearly rendered. Bean, in particular, stands as a noteworthy creation. Yet the book never quite manages to match the much-honored original. On its own, the novel is entertaining and enjoyable, crafted with skill and vigor. But in the comparison to *Ender's Game* invited by everything from the title to Card's own remarks in the foreword, *Ender's Shadow* comes up a little short. In that light,

the book becomes a bit like the special battle maneuvers Ender tasks Bean with, creating a sideshow instead of a main attraction. Of course when the main attraction is one of the most respected SF novels of all time, even being tapped as a worthy sideshow is a considerable achievement.

James Lowder

A Civil Campaign by Lois McMaster Bujold.

Bantam, Bantam Books, 416 pages, \$24.00.

There's nothing better than visiting an old fictional friend and getting caught up on all the news and adventures. Getting enthralled in the latest Vorkosigan adventure, *A Civil Campaign*, by Lois McMaster Bujold, was

exactly such a treat. With this book, Bujold is giving Connie Willis a run for its spinnest science writer. As it opens, Miles Vorkosigan is busy (at his father's behest) running the Vorkosigan district, trying to woo and win his lady love, and awaiting, with all of Barragyr, Emperor Gregor's wedding to the lovely Laisa. From these simple starting threads many, many more will be interwoven into a tapestry of rich humor and danger.

Ekaterrin Vorsoisson, Miles's lady love, found her husband

Tien dead in the previous adventure. Ekaterrin ended up being very heroic and Miles, meeting her as a part of his Lord Auditor duties, fell slowly, helplessly in love with her. Unlike the tall, bold soldiers he's previously been involved with, Ekaterrin is of Barragyr and can share with Miles the love of a difficult land burdened with a forbidding and even backward culture.

At any rate, Ekaterrin's late husband was not a particularly nice man and 10 years of marriage to him has made Ekaterrin swear never to wed again. She is going to care for her son, study biology, and leave this romance stuff alone. In the meantime, she cherishes her friendship with the fascinating and energetic Miles Vorkosigan. So when Miles asks her to design a garden for him, her eagerness to use her skills, earn money, and be close to Miles makes it easy to say yes.

Miles is thrilled to have created a scheme that puts Ekaterrin into his orbit nearly every day. He is sure if he waits for her to mow, and woos her gently, she will love him back. He pretty much tells everybody, including his cousin Ivan, how he feels about Ekaterrin. In a sudden burst of jealousy or insecurity—Ivan is tall and good looking—Miles makes Ivan promise not to court Ekaterrin himself. Ivan was only teasing and finds himself a little mad at having given his word. He is also a little delighted at Miles's raw vulnerability. He mentions to a few acquaintances the lovely young widow living near the university with her Aunt and Uncle Vordhys. It doesn't take many hints, in female-starved Barragyr, for a courting crowd to gather around the oblivious Ekaterrin.



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Miles gets a bit nervous.

In the meantime, Barragran politics meets biology: Because only men can rule districts as counts, what happens when a sister goes off-planet for a sex-change operation of amazing sophistication? Lady Donna is now Lord Dono and, thus, is she (he?) heir to her (his?) late brother's district? The other biological tangle involves Count Rene Vorbtretten, who has discovered Cetagandan genes in his gene scan. Rene's many-greats grandmother's affair—whether of love or desperation during the Cetagandan Occupation no one could now know—is now public knowledge and may lose him his Council seat, his district, pretty much everything. Cetagandans are hated by the Barragrans. Is that any reason to suddenly redefine who Rene Vorbtretten is now, six generations later?

Slowly Miles gets involved in these political and biological issues. As a known progressive voice in Council, Miles wants Rene and Dono confirmed and installed, respectively. Before he has more than barely begun to get under-

way, in both politics and love, his clone-brother Mark comes home towing a brilliant Escobaran scientist, Dr. Enrique Borgos, a specialist in "butter bugs" that Mark bailed out of trouble. Mark's ladylove, Karen, is the daughter of Count and Countess Vorkosigan's dear friends the Koodelkas. Soon, Karen has joined Mark and Enrique and thousands of butter bugs in an entrepreneurial and biological enterprise right inside Vorkosigan house in Barragar's capital city.

Like any good comedy writer Bujold adds shining moments of depth—shame, anger, passion, sadness, tenderness, danger—to deepen the humor. Bujold has created, in many novels now, a world that combines intergalactic travel and swordplay, archaic customs that somehow hint of Regency England with the most sophisticated anything-goes possibilities of modernity, and created a compelling, enjoyable series. She expertly keeps it all under control and, as always, is able to put just the right ending together.

Rachel Russell

BOOKS TO WATCH FOR

Dune: House Atreides, by Brian Herbert and Kevin J. Anderson (Bantam Spectra). Working from recently discovered files of *Dune* creator Frank Herbert, two noted authors make a triumphant return to the planet Arrakis, where a legend was born.

Babylon 5: Final Reckoning: The Fate of Bester, by J. Gregory Keyes (Del Rey). As *Crusade* fills the airwaves, don't let B5 go. Follow Alfred Bester—the homage character, not the SF author—and uncover the secret history of the Psi Corps.

Moon Shots, edited by Peter Crowther (DAW). On the 30th anniversary of the first manned Moon landing, join the celebration with short stories from Brian Aldiss, Gene Wolfe, Stephen Baxter and 13 others—including the editor of *SF Age*.

The Robot's Twilight Companion, by Tony Daniel (Golden Gryphon). Continuing to fill a niche, one of the finest of the newer specialty presses packages the superb short stories of one of the finest of our newer SF writers in a handsome hardcover edition.

The Rift, by Walter John Williams (HarperPisan). The Earth gives a shug that measures 8.9 on the Richter scale, and Williams steps into the role of journalist to report on the pain and hope as the planet tries to rebuild. A breakout book that you'll swear the author lived.

The Far Shore of Time, by Frederik Pohl (Tor). SF Grandmaster Pohl returns to the world he created in *The Other End of Time* and follow-up *The Siege of Eternity*. The trilogy concludes with the *Dunsty*. The trilogy concludes with the *Dunsty*.

perman clones attempting to prevent Earth's destruction.

Brian Aldiss, by Tom Henigman (Twayne Publishers). The Twayne's English Authors Series continues with an in-depth look at the acclaimed author of such classics as *Billion Year Spree* and the *Hellconia* series.

UFOs, JFK and Elvis: Conspiracies You Don't Have to Be Crazy to Believe, by Richard Belzer (Ballentine). The acerbic comedian tries to make sense of *The X-Files* world we live in, making us laugh and cry along the way.

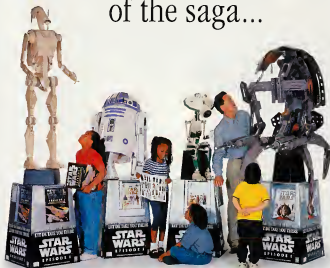
David Brian's Out of Time 3: The Game of Worlds, by Roger McBride Allen (Avon). Allen, who has played both in Asimov's universe and his own, tinkers in the round robin playground provided by Hurd SF titan David Brin.

Science Fiction of the 20th Century, by Frank R. Robinson (Collectors Press). The author digs into his unrivaled collection of SF's most memorable pulps to let us relive yesterday's images of the future. Highly recommended for every SF fan who can still dream.





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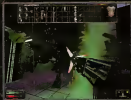
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By Michael Marano

Forget Generation X—Generation SF turns the dial at the turn of the Century.

THE FALL 1999 TV SEASON WILL BE THE LAST OF the child. (Aren't you sick of the word "millennium"?) As we stand on the brink of a new era in check printing, maybe we ought to consider the larger, rather science-fictional picture before we take a look at this fall's SF/Fantasy/Horror TV offerings.

Network TV is losing its audience to newer media, most especially the Internet and cable programming. Network programmers and executives are adapting by using multi-pronged marketing campaigns, and by doing what they always do when faced with impending financial crisis: pandering to the youth market. This tactic, sound in terms of tapping the disposable cash of the babies of Boomers, doesn't take into account that the young'uns the networks are pandering to are the very young'uns the networks are losing to new technologies and markets. We're talking about the kids ABC chairman Robert A. Iger calls "the mouse click generation."

How's the "New Flesh" affecting the Science Fiction/Fantasy/Horror videoscope? As of this writing, the fate of *Crusade*, J. Michael Straczynski's follow-up to *Babylon 5*, is shaky; only 13 episodes of a planned 22 have been filmed. TNT will show *Crusade* as a "limited series"

in June '99; there is a slight possibility the show will be renewed if ratings are strong. *Crusade* follows a complex, galaxy-spanning story arc dealing with the starship *Excalibur's* quest to find a cure for a plague unleashed on Earth by aliens. Yet TNT—which gets huge revenues from wrestling and action shows—wanted to retool *Crusade* so that it would better fit its youth-centered programming, which led to conflict with Straczynski's Babylonian Productions. And the *Youthquake* is shaking premium cable TV, too. Showtime will launch a new cable service in September called *Showtime Beyond*, devoted to science fiction, fantasy and horror programming.

Not much happening on Mondays, save for the return at 9:00 PM of producer David E. Kelley's slipstream/surreal/semi-fantasy mega-hit on Fox, *Ally McBeal*... which will be competing against ABC's *Monday Night Football*. Coincidence, or a conspiracy to bring the battle of the sexes to a head? Love it or hate it, *Ally McBeal* is a cultural force.

Tuesdays at 8 PM will see the return of NBC's SF satire, *3rd Rock from the Sun*, the ratings of which seem to have stabilized now that it's no longer competing against *The Drew Carey Show*. *3rd Rock*, about a crew of aliens studying Earth culture while trying to pass for human, regained the sarcastic edge it had lost for a while. *3rd Rock* ended its season with a bang-up finale guest-starring William Shatner as the human incarnation of the aliens' boss, The Big Giant Head... who, during a surprise inspection of the crew, fathered a human/alien hybrid with Harry Solomon's wonderfully trashy girlfriend, Vicki, played by Jan Hooks.

Also Tuesdays at 8, Fox will bring us *Ally*, a half-hour retreat of *Ally McBeal* cobbled from out takes and unused material from the show's first two seasons. In other words, a freakin' blooper reel. Maybe we should hire *Ally's* firm to sue producer David E. Kelley for ripping off his viewers? Following *Ally* at 8:30, Fox will present the bold half-hour "alternate history" science fiction program, *That '70s Show*, in which '70s teens are shown to be happy, well-adjusted, and zit-free. Fantastic.

Of course, the big news Tuesday nights will be the WB's double header of *Buffy the Vampire Slayer* at 8 PM, followed by the much-hyped, much-anticipated *Buffy* spin-off, *Angel*, at 9 PM. As of this writing, the season finale of *Buffy* ("Graduation Day, Part 2") has gone unaired in the US (as has an episode from earlier in the season, "Earshot") due to the social aftereffects of the Columbine High School shootings in Littleton, Colorado. Both "Graduation Day, Part 2" and "Earshot" deal with scenes of violence on a high school campus, albeit in the fantasy context of Sunnydale High sitting on top of the Hellmouth. WB chief exec. Jamie Kellner explained the net-



BELOW: Angel graduates from *Buffy the Vampire Slayer* to his own series. RIGHT: Meanwhile, God, the Devil and Bob star in a mid-season replacement.



work's decision: "It is out of sympathy and compassion for the families and communities that have been devastated by the recent senseless acts of violence perpetrated on high school campuses that we have decided to delay this broadcast ... At issue for us was a short part of the climactic scene of this powerful two-part season finale ... Given the current climate, depicting acts of violence at a high school graduation ceremony, even fantasy acts against 60-foot serpents and vampires, we believe, is inappropriate to broadcast around the actual dates of these time-honored ceremonies." 20th Century Fox, which produces *Buffy*, supported the WB's decision. Here we see the flip side of the influence of the youth market that derailed *Crusade*: protecting the kids. Next year, *Buffy* (Sarah Michelle Gellar) and Willow (Alyson Hannigan) will go to college in Sunnydale, and as every slasher movie fan knows, college-age kids are fair game for media depictions of campus violence, so don't expect any more episodes to be delayed.

"Graduation Day, Part 2" was to be the springboard for *Angel*, in which *Buffy*'s vam-



piric boyfriend cursed with a soul, played by David Boreanaz, takes off for LA to find his own adventures. *Buffy* and *Angel* creator Joss Whedon says that *Angel* will have a darker edge than *Buffy* and will not focus as much as *Buffy* does on long story arcs. Charisma Carpenter, who starred as the delightfully self-absorbed Cordelia Chase on *Buffy*, will be a regular on *Angel*. Ms. Chase will be in LA to pursue her dreams of fame and stardom, but will wind up in the employ of Doyle, a rather sleazy—and rather undead—private eye (played by Glenn Quinn of *Roseanne*) who has been assigned the job of acting as *Angel*'s spiritual guide by certain higher powers.

Wednesday sees the return at 8 PM of the CIA/time travel series on UPN, *Seven Days*, about an operative played by Jonathan LaPaglia who is sent back in time for the span of one week to prevent disasters that have already happened, followed by the "last man standing" (now that *Deep Space Nine* has ended its run) of the venerable *Star Trek* franchise, *Star Trek: Voyager*.

The most pressing question about *Star*



ABOVE: *Roswell*'s alienated teens. LEFT: Enter a Harsh Realm with Scott Bakula. BELOW: Futurama triumpheantly returns.

Trek: *Voyager* has been whether or not the USS *Voyager* will make it back to the Alpha Quadrant. It might be a good idea, as with the cancellation of *Deep Space Nine*, there is no longer any venue through which the larger drama of the Federation can be played out. The cliff-hanger finale of season 5 had the *Voyager* crew going head to head with the crew of *The Equinox*, another Federation craft stranded in the Delta Quadrant, though no obvious route back to the Alpha Quadrant seems available to *Voyager* ... yet. For a while, it seemed uncertain that Kate

Mulgrew (Captain Kathryn Janeway) would stay with *Star Trek: Voyager*. Reports in *The New York Times* and elsewhere hinted Mulgrew wished to return to the New York theater and leave Hollywood behind. Grueling 80-hour work weeks may have had something to do with this. Paramount issued a statement in which Ms. Mulgrew said she "cannot imagine not participating in (the show's) entire run, whatever that may be," and as of this writing, early reports suggest Mulgrew has signed on for a seventh season.

As for the future of *Trek*, Rick Berman, one of the guiding forces of the franchise, hinted in *TV Guide* that he is working on new *Star Trek* television projects that may combine the casts of *Star Trek: The Next Generation* and *Deep Space Nine*. Live long and profit.

Also on Wednesday nights ... the youth market Juggernaut, *Dawson's Creek*, will lead in at 8 PM for the WB's new high school/ SF hybrid, *Roswell*, 9 PM, a show that had been initially developed by Fox Studios for the Fox Network. While it may be easy to dismiss *Roswell*—about present day teens hooking up with ETs passing themselves off as human

after being stranded by the 1947 crash of their vessel—as just the basest pandering to the post-*X-Files* youth market imaginable, there's some heavy talent behind *Roswell*. Jonathan Frakes and David Nuttall have been slated to help develop the show and to direct episodes.

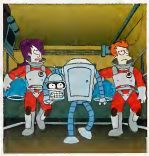
Thursday on the WB we see yet another acne-remedy-sponsored high school show (Disney/Touchstone's *Popular*, 8 PM) leading in for a youth-targeted genre show ... the return engagement of one of the surprise hits of last year, *Charmed*, 9 PM, about three lovable witches doing good deeds (which, last year, had *Dawson's Creek* as a lead-in to hook young viewers).

Star Trek: Voyager gets the juiciest spot a sit com could hope for, right after *Frasier* on NBC at 9:30 PM Thursdays. The show is the latest creation of Steve Levitan, late of *Prose*, *The Larry Sanders Show*, and *Just Shoot Me*, and concerns the trials and tribulations of a book editor, played by Doogie Howser himself, Neil Patrick (Starship *Troopers*) Harris, assigned to work with a brilliant yet utterly nutty horror writer played by Tony (Wings) Shalhoub.

The big news Friday nights is *X-Files* creator Chris Carter's new SF show, *Harsh Realm* (Fox, 9 PM), loosely based on the comic book by James D. Hudnall and Andrew Paquette. *Harsh Realm* will focus on military man Lt. Thomas Hobbes, played by Scott Bakula, entering the virtual reality of a top-secret combat training program called *Harsh Realm*, where he must fight for his life against assorted bad guys (headed by Terry O'Quinn, late of Carter's *Millennium*) that exist in the cyber world. D.B. Sweeney plays Hobbes's *Harsh Realm* ally, Mike Pinnocchio. Sarah Jane Redmond (previously, everybody's favorite shape-shifting demonoid Lucy Butler on *Millennium*) will also have a regular role.

Rumor has it *Harsh Realm* has been retooled to tone down its violent content out of consideration of ... you guessed it ... the youth market. Since *Harsh Realm* began production on March 17th, three major virtual-reality-themed movies have been released, *eXistenZ*, *The Thirteenth Floor*, and the monstrously popular youth hit, *The Matrix* ... which took quite a beating in the media fol-

Continued on page 86



STAR WARS EPISODE I

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ONE OF THE MOST ENDEARING AND WONDERFUL ELEMENTS OF J. MICHAEL Straczynski's series *Babylon 5* was its single vision, singularly executed. Right from the get-go he knew his TV novel would span exactly five years, just as he knew how the final shot of the last scene would look. For all who have loved Straczynski's premier epic creation and bemoaned its passing, thank your lucky starships, because he's back with further monumental tales of heroism and villainy in his new Top Cow comic, *Rising Stars*.

Sometime during the Reagan era (in Straczynski's fictional past, not our own) a comet impacted on Earth, bringing with it a strange twist of fate. Those near the blast and *in utero* when the flash hit were changed forever. As these children grew, their parents, teachers, and neighbors soon realized just how different these kids are going to be. In true Straczynski fashion, *Rising Stars* chronicles the events of these 113 children over the course of 60 years and twenty-four carefully planned issues, beautifully illustrated by Keu Cha. Born with supernatural powers or "enhanced abilities" (a term used by the United States Supreme Court in issue #4) these children become adults and must learn to live hard in a hard world, doing their best to make the right choices, for they may be the "last, best hope for a better world." For more information check out Top Cow's website at www.topcow.com or visit your local comic shop.

BOOKS

FAN TOMES

UNFORTUNATELY, *STAR WARS* junkies have roughly two years until they can get their next fix of Jedi mind tricks, light sabers, and The Force. Meanwhile, we are all hungry to absorb as much Prequel information as possible and Running Press is here to help with two pocket-sized books, *Star Wars: Episode I Who's Who* and *Star Wars: Episode I What's What*.

Who's Who by Ryder Windham (hardcover, 127 pages; \$5.95) is a handy reference guide to the characters of *Episode I*. In it you'll find 50 brief biographies (even of those with the briefest of cameos) along with a full-color still from

the movie. Remember Yaddle? She's the same race as Yoda and was in the Jedi Council Chamber.

(She looks just like him, but with long brown hair.) *What's What* by Daniel Wallace (hardcover, 127 pages; \$5.95) details the organizations, vehicles, droids, weapons, and technology from *The Phantom Menace*.

This tiny treasure gives you all the fundamental information that every *Star Wars* guru needs to know. Things such as What is a STAP? and Who financed the constructions of the Mos Espa Arena? These pocket-sized guides will aid you on your second, third, or even thirtieth visit to the theater.



COLLECTIBLES

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your answer in the form of *Star Trek: Deep Space Nine Memories* from the *Future* trading cards. These cards showcase the greatest moments from your favorite characters, and each box is guaranteed to contain an autographed card signed by an actual cast member. The show's distinguished history is documented through the 89-card base set and the five bonus sets such as "Greatest Alien Races," "Greatest Legends," and "Greatest Space Battles." Available at most hobby stores.

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LOIS MCMASTER BUJOLD'S hero, Miles Vorkosigan, is back again, and this time, not only is it murder—but it's been taped. Audio taped, that is. The latest offering from The Reader's Chair brings us *Cetanganda*, complete and unabridged. Eight tapes and over nine hours long, Bujold's story of diplomacy and homicide among the stars is enthrallingly entertaining. To find out why fun favorite Miles is being framed call (800) 616-1350, e-mail TRC@ReadersChair.com, or visit their web site at www.ReadersChair.com. Mention their "free sampler" to receive a free tape containing sample excerpts from *Cetanganda* and many other titles.

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RUN RAMPANT AS A Colonial Marine, a Predator, or an Alien in *Aliens vs. Predator*, the latest first-person perspective game from Fox Interactive. As a marine you'll have smart guns, grenade launchers and flame throwers at your disposal to waste the bad guys. If you choose to play a Predator you can deceive your opponents by turning invisible and attacking them with wrist blades or razor-sharp throwing disks. Of course the Aliens do have deadly claws, acid blood, and the ability to climb walls and attack from above. It's your choice. Just be on the lookout for your enemies. You never know where they'll be. A perfect way to celebrate the 20th anniversary of *Alien*. Visit Fox Interactive's web site at www.foxinteractive.com.

ALIEN IMAGES

NEW ON VIDEO

SPACE, SICKNESS, AND SCHOOL ARE DEADLIER THAN we imagined and they are waiting for you at your local video store:

VIRUS: Scream Queen Jaime Lee Curtis is back, and this time she's being haunted and hunted by something more frightening than a man wearing a hockey mask. William Baldwin (*Backdraft*) and Donald Sutherland (*Outbreak*) join her as the crew of an American tugboat who discover a Russian ship at sea and the "electronic entity" originating from the Space Station MIR. Self-aware, it believes humans are a virus that must be eliminated.

STANLEY KUBRICK COLLECTION: Warner, Columbia TriStar, and MGM are jointly releasing the late Stanley Kubrick's most memorable films, which include a number of groundbreaking SF-pal efforts. Offered in the collection are *Lolita*, *2001: A Space Odyssey*, *A Clockwork Orange*, *The Shining*, *Full Metal Jacket*, *Dr. Strangelove*, *Barry Lyndon*, *Paths of Glory*, and *The Killing*.

THE FACULTY: Director Robert Rodriguez (*From Dusk 'Til Dawn*) and writer Kevin Williamson (*Scream*) shows us that high-school detention and detentions are much different

these days. Elijah Wood and pals discover that their teachers are from another planet. Salma Hayek, Jon Stewart, and Bebe Neuwirth star as the faculty fatale.

THE UNAUTHORIZED STAR WARS STORY: Enjoy a behind-the-scenes look at the film that changed pop-culture in America. This unauthorized film contains 62 minutes of gossip, facts, and anecdotes from Carrie Fisher, Harrison Ford, Mark Hamill, Samuel L. Jackson and the many of the off-screen players.



ALIEN: 20TH ANNIVERSARY COLLECTION: Twenty years ago the phrase "In space no one can hear you scream" made us fear the deep darkness of space and Ridley Scott's expert direction made us quake at the monsters cloaked in those shadows. Join Ripley (Sigourney Weaver) once again as she fights the never-ending battle against the H.R. Giger-designed aliens. This five-volume box set offers the complete series with new THX Masters, a special edition of *Aliens* containing nearly 20

minutes of additional footage, a 20th anniversary documentary "making of" tribute to *Alien*, a gallery of over 500 photos and drawings, and collector cards. For more info visit www.alien-movies.com.

Looking backward, one must be as forward-thinking as when looking at the future.



ABOVE: Why the tides of human events go one way and not another is more a mystery than a history. Art by Bob Eggleton.

HISTORY IS BUNK," COMMENTED HENRY FORD, and that may be so—but can history be science? Certainly there is history in science fiction. From the galactic empires of Asimov to the second American revolution of Heinlein to the time travelers of L. Sprague deCamp, history has loomed large in science fiction. All that, and we haven't even yet mentioned the latest innovation in science fiction, the novel of alternate history. Looking forward at the brink of the next millennium, what can historians tell us we have learned from looking backward at history?

Interacting with *Science Fiction Age* science-fiction regular Geoffrey Landis are two of the most eminent historians in science fiction: John Barnes, a best-selling science-fiction writer with a doctorate in theater history, and Harry Turtledove, a scholar of Byzantine history who is also well known as a writer.

Now a professor at Western State College in Gunnison, Colorado, a small, isolated town in the Rockies where scenery is abundant and people are scarce, Dr. Barnes teaches a bunch of different communication and theater courses, cooks, skis, or reads when he has time, and has "settled into a pleasant state of mild academic vegeta-

tion." This hasn't stopped him from writing: His recent books include the paperback of *Earth Made of Glass*, a sequel to *A Million Open Doors*, and stand-alone novel *Finity*; both are from Tor Books. Dr. Harry Turtledove is well known to science-fiction readers as the Leonardo of the alternate history, a few of his better-known works include the alternate history "Videssos" cycle, about the Byzantine empire; the "World War" cycle, about Earth's response to alien invasion during the World War II; and a series of novels about the consequences of the North losing the American Civil War, including this year's Nebula-nominated *How Few Remain*, and the most recent, *Great War: Walk in Hell*, both from Del Rey.

LANDIS: History and science have similar goals—they're both interested in finding truth that has been well hidden. Is history a science? Will it ever be?

TURTLEDOVE: Not in the sense of being able to predict successfully from past data.

LANDIS: Why not?

BARNES: Some of the material in history comes from work done in sciences—archaeology is the obvious example. But history is much more about the construction of a plausible past by intellectually honest means.

LANDIS: A plausible past? You mean, it doesn't matter if it really happened that way, as long as it's plausible? So history isn't about what really happened?

TURTLEDOVE: We try to come as close as we can to what really happened, knowing that our answers will be imperfect because we're often either starved for data (the problem in ancient history) or else drowning in it (the problem in modern history). History is the search for what happened, not the finding of it; the word comes from a Greek verb meaning "to inquire into." And there are parallels with some of the sciences—what Homer has to say about paleontology comes to mind—limited evidence, fresh discoveries. But it's about the past, not the future.

LANDIS: If we can't learn from the past, what good is history?

TURTLEDOVE: We learn some of why things happened. Why is what makes history tick.

BARNES: A good parallel is stellar astronomy, at least for this and the next century or so. We can't change anything about the stars, so why study them?

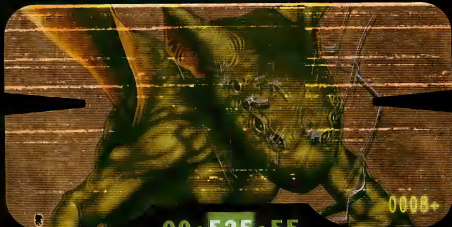
TURTLEDOVE: But our means of examining them have improved with time. That's much less true in history.

BARNES: And it's in the nature of things that there are going to be more plausible whys than there is evidence to settle questions between them. In history, I mean. Though it's by no means clear that astronomy is any friendlier to the analyst!

TURTLEDOVE: An important point. In history, the argument and how well it's framed count for at least as much as the evidence supporting it.

BARNES: Oh, I'd say some of our means of examining history have improved—but intellectual tools just plain evolve more slowly than gadgets.

TURTLEDOVE: Anything that can add to what we know



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about the past is grist for my mill. That includes economics, but in with everything else—no particular pride of place.

BARNES: Whereas I think "How did they eat?" and "What kind of work did they do?" are pretty much *a priori* questions. Along, of course, with "Who owned what?" and "What did 'own' mean?"

TURTLEDOVE: "What did they believe?" and "Why?" count for a good deal, too. They'll influence how folks ate and what they did. It's hard to explain Alexander or Muhammad, to name two, looking at "How did they eat?" and "What work did they do?" first, and they have as much influence as anybody on the past 2,300 years.

BARNES: Although part of the explanation of influence always has to be in the people who are influenced rather than in those who did the influencing. There were probably hundreds of Judean prophets between 100 B.C. and 100 A.D. who said many of the things Jesus did, and who at least hinted that they were the Messiah, but the Mediterranean basin was more susceptible to one version than to any of the others.

TURTLEDOVE: And trying to find out why Jesus is the rub. Yeah, that interests me, too.

BARNES: Or, for that matter, why did the ancients make the big deal out of Alexander that they did? Not that he'd have been invisible in any case, but why did he fascinate Rome?

TURTLEDOVE: Or why Alexander? Had Philip not been assassinated, the attack on Persia would have looked a lot different. Alexander was probably the most influential secular figure ever. The Romans felt it—he was to them what Napoleon was in the 19th century: the model of a modern major general. Alexander was the James Dean of his era—he lived hard and died young. The first example of alternate history I know of was Livy, around the time of Christ, wondering what Rome would have done had Alexander turned west.

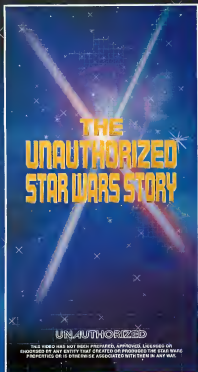
LANDIS: So, the millennium is almost here. Everybody else is looking forward. Looking backward a thousand years, what does history—or historians—have to tell us?

BARNES: Well, as millennia go, it's been a very lively one. Not that the two before it were exactly slow.

TURTLEDOVE: This *is* the millennium—actually, these were the 300 years—when knowledge and religion have separated. That's new and really important.

BARNES: I sort of buy Bill Barron's characterization of the present age as the approximate middle of what he calls the Red Millennium—the period starting in 1400 or so when the world really tore up everything traditional and found a whole new mode of existence. And it seems doubtful that we're any more than half way through the process.

BARNES: One of the things the poststructural perspective says is that history is written by people who are themselves part of it and who write for reasons that arise out of it. Sort of an entangled-observer problem.



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TURTLEDOVE: A more conservative historian would say that isn't, and can't be, history—just journalism. This is not necessarily my own view; the observer effect is true everywhere, but the degree varies.

BARNES: So, for example, there's not much like the modern concept of the economy until the early 19th century, and it wasn't until that came along that it was possible for a book like *Trade and Market in the Early Empires* to be written.

TURTLEDOVE: One of the reasons that's true, I think, is the accumulation of data that made developing the concept possible in the first place.

BARNES: And much of the data was originally accumulated for other purposes.

BARNES: In the same way, there hasn't been much reason for most Americans to know much about the Balkans for a long time... but present circumstances may make the Balkans interesting to American historians, at which point they will inevitably write with some awareness of the reasons it has become important.

TURTLEDOVE: An American historian—not a historian from America, but a historian of America—can't approach the Balkans, because he hasn't got the languages for the job. He can write about American perceptions of the Balkans, but that's not the same thing.

BARNES: Though, for example, it has never been possible to be an American historian with no knowledge of British history... but until about 1940 you could be an American historian with little knowledge of German history or Russian history.

TURTLEDOVE: The history of the Balkans has so many conflicting nationalisms running around loose that extracting anything resembling truth is a crap shoot. And history and politics are much more closely linked there than here.

BARNES: Right now you can be an American historian without much knowledge of the Near or Middle East... but give it another couple generations, and you won't be able to. History and politics are also linked differently there and here.

TURTLEDOVE: They essentially aren't linked here; history is buried here. No one campaigns now by talking about what happened in the Civil War. It ain't like that there. But Greece won't let Macedonia call itself Macedonia; it's "The Former Yugoslav Republic of Macedonia"—because of irredentist claims that Greece has on the territory, and resentment that a bunch of Slavs should have the name that Alexander made famous. Americans have come here to escape history, and by and large have. Hell, in Los Angeles, I'm an Anglo, which is pretty funny for an East European Jew.

BARNES: American culture doesn't really support the idea of a "proud family name." I'm probably one of the younger Yankees that has any emotional tie to the Civil War; abolitionist relatives who were bloody shirt

wavers kept the fire alive a little longer in my bloodstream.

TURTLEDOVE: The defeated tend to remember longer than the winners. This may be one reason why the Balkans are such a mess; everybody there has lost a whole bunch of times and still has resentments burning bright.

BARNES: Yep, but most southerners aren't any more passionate about the Lost Cause than my father is about the Union.

TURTLEDOVE: No, not now, John, but two generations ago that wouldn't have been so.

LANDIS: So how well is history treated in *Science Fiction*?

TURTLEDOVE: It varies, as with anything else. Some use it; some ignore it; some botch it.

BARNES: Well, Asimov's psychohistory.

TURTLEDOVE: It struck me as "History repeats itself" writ large—very large.

BARNES: It always struck me as a desperate attempt to control exactly the things that a scientist would find alarming about history. First and foremost, its unpredictable nature. Then its frequent introduction of the purely random *Thing From Nowhere*. And finally the inescapable problem of conflicting interpretations equally well supported.

TURTLEDOVE: But the *Thing From Nowhere* really is part of the process; you just don't know which part until after the fact.

BARNES: That's a great way of putting it, Harry.

TURTLEDOVE: It was in the cards that Germany would try a second round after the first World War. But whether it was in the cards that it would do so under Hitler is a different question altogether. And things could have looked differently otherwise.

BARNES: One kind of not-yet-publishable alternate history is the one where some huge event happens in the middle of a "nothing" period.

TURTLEDOVE: Imagining Charlemagne when he didn't really exist.

BARNES: Suppose, for example, the New Madrid earthquake doesn't happen till 1876.

TURTLEDOVE: What you can do in alternate history depends on what really did happen. You couldn't have written a Hitler wins-but-Fascism-collapses story before 1989, for instance. It would have been too implausible. "A boot in the face of mankind forever," to quote Orwell. But it turns out not necessarily to be so.

BARNES: And some of the alternate worlds may be more probable than our own. A slightly more adroit group of German communists might have actually taken over in 1919 and allied with the fledgling Soviet Union ... leaving World War II, when it broke out around 1928, to be Germany and Russia Against Everybody.

TURTLEDOVE: Or Einstein might not have done his work when and as he did, in which case nuclear energy isn't found for a goodish while, and we might have had the World War

III with the Russians in 1955-60 or so. Killing millions never deterred us; billions was a different ballgame.

BARNES: Billions right now was different; billions over time might have been tolerable.

TURTLEDOVE: Yeah; it's the right now factor.

BARNES: Anderson and Benson came up with a world where enriched-uranium bombs worked and plutonium bombs didn't; as a result nukes were extremely scarce well into the 1970s, and consequently one or two of them would get used in every little brushfire war, since you never had to worry about more than 15 of them in the other guy's arsenal. Very ugly world. Every so often we do get lucky.

TURTLEDOVE: South Asia is heading that way right now, looks like.

BARNES: And then again, every so often, we don't.

LANDIS: So what does history tell us about the future?

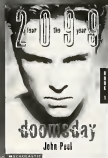
BARNES: History tells us that history does not end.

TURTLEDOVE: Predicting is a mag's game. There's never, and can't be, enough data—or enough wisdom to interpret it even if it's there.

BARNES: There are regularities, of course ... but the greatest of all regularities is that there will always be an overriding reason to ignore the regularities! □

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what it is

By Robert Reed

Illustration by Michael Dubisch

LIE STILL. AND PLEASE TRY TO CALM YOURSELF, SIR. PLEASE. Nobody here will harm you. Ever. As soon as you feel the urge, breathe. We have provided oxygen for your enjoyment. Scented with your favorite aromatics. Turkey roasting in your mother's oven. The interior of a new Lexus. Your wife and her perfume on your wedding night—

Oh shit, where am I ... and who the hell are you ...?!

This is a safe place. And we are your friends. Admirers, frankly. May we take this moment to tell you this is a considerable honor for us ...?

(Gasping, panicked breaths.)

Relax your diaphragm. Please.

I'm ... trying ...!

You are trying. And we very much appreciate your efforts.

(Respiration slows.)

That's better. Much better.

Is it?

Your blood looks happier now. And may we take this opportunity to thank you for your cooperation ...?

I haven't done anything.

But you will. Inevitably, you will.





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(Respiration quickens, but remains manageable.)

Would you open your eyes, sir? Now. We have something to show you.

I don't see anything. Except darkness.

No, no. A little to your right, sir. Yes, there.

What it is ... it looks like a rat, sort of. Like a fat hairless greasy rat. Except I can't see a head on it, or any legs. So maybe ... wait. Wait. It's some kind of giant sperm, isn't it? With that long tail and how flat it is at the other end ...

A rat or a sperm cell. How extremely interesting.

What is it, really? Do you know?

Of course we know.

So tell me.

What it is—

Yeah?

Is you.

Me?

Your species, sir. That's what it is.

I don't understand.

Simply put, we are showing you every human who ever existed.

Now, shit ... I really don't understand ...

because you can only perceive three unremarkable dimensions. While we embrace all dimensions. When we look at humanity, this is what we see. What you call the tail extends into what you think of as the past. It is thin when your species is scarce. At its tip, the human species is less than two hundred cells living in an isolated African valley—

Cells? What do you mean, cells?

To us, sir, you are a single cell. One of several billion cells living here—

Hold on! Wait!

Yes, sir?

I need a second. To think.

Perhaps you do. And please, take as many seconds as you need. (A prolonged silence.)

But consider this, sir. As you collect yourself. We are showing you time as well as space. Your species thickens when humans become abundant. Here. Tens of thousands of hunter-gatherers become millions of farmers and kings. And later—here—you are seeing billions of factory workers and bureaucrats and teachers and soldiers and presidents. This is a reliable sign of success, this rigorous and sudden growth. Take our word for it.

What ... am I ...?

Our honored guest, of course.

But no ... according to you, I'm just one of those tiny, tiny cells ...

That is a rather self-effacing attitude, sir. If you don't mind us saying so.

(Another pause.)

We have pulled you from your species' body, yes. But only temporarily, and only for research purposes. Be assured. You will

have no memory of these events. Or at least no memory that will make sense to you.

I'm not a cell.

And why not?

Cells are nothing. They don't have souls, or minds, or anything that makes them anything but ... cells ...!

Do you have a soul, sir?

Absolutely!

And a mind?

Most of the time, I thought.

And is there anyone exactly like you? Sir.

I hope not.

Well, then. Perhaps you should invest a moment and re-evaluate your biases. In the light of what you have just learned.

(Respiration slows.)

Perhaps you would like a drink. To soothe your nerves.

I don't know.

Open your mouth, sir—

Ugg! What is that crap?

Milk. Of course.

What kind of milk?

Over the course of your entire life, this is your favorite drink. It's what your mother fed you from her own ample ducts—

I'm going to be sick!

Hardly.

I want to go home!

And we will return you, as promised. The same instant you left in the first place.

(Slow, deep respiration.) OK. Fine. You've got me here. You can do whatever you damn well want. Just explain this to me. What do you want?

As we mentioned, this is a research project.

Research into what?

Would you care to see yourself, sir? Where you sit inside the great body of the human species?

I guess so. Show me.

At the wide end of the body. Do you see? A nearly flat skin built from more than 10 billion soul-bearing cells, and you are among them. That highlighted cell. There. Sprint, and you can observe your entire life ...

But what's it all mean?

What does that mean, sir?

I'm as far from the tail as possible. If I'm one of those little cells on the surface there ... doesn't that mean that I'm living at the end of the human history ... and my species is about to go extinct somehow ...?

No, sir. Not at all.

So why not?

First of all, every species is eternal. Each occupies a specific volume and a specific time. In our minds, extinction isn't possible. Nor is death. A portion of our universe is reserved for you. You. There you are, now and forever ... the infant boy sucking from his mother's breast, and the grown man who finds himself here ...

THICKENS WHEN HUMANS BECOME ABUNDANT. HUNTER-GATHERERS BECOME MILLIONS AND KINGS.

Is there a nuclear war?

Hardly.

Does a comet hit us? Or some plague?

No. Nothing of the sort.

What then?

Look at yourself again. Closely. Look at what happens to your life. Your flesh and bones are filled with powerful new machines. Immortal machines. Thoughtful machines. Miracles created by humans and intended to serve humanity.

I can see something, I guess.

When these miracles arrive, you embrace them. And the moment you embrace them, you cease to be human. In our eyes. (Respiration stops for a moment, then resumes.)

Because the advantages are so enormous, and seductive, virtually all living humans allow themselves to be transformed. In one fashion or another.

Shit.

It is a lovely process. Yes, sir.

(A long silence.) I guess ... I guess if this is all true ... then I still don't have the damndest idea what you want from me ...

(Patient silence.)

What we turn into ... what I become ... is it you ...?

(Laughter.) Hardly, sir. Hardly!

What then—?

Look to your left now, sir. And up.

OK. What is all this?

Your many offspring, in essence.

It looks sort of like hair. Or a million tentacles. Or I don't know what. I can't make sense of any of it.

The transformation of humanity is a complex story, sir. Different people embrace different wonders. In just the first year, your species gives rise to many thousands of important new species—

(Silence.)

And yours isn't the only Earthly species involved.

What? You mean the dolphins?

Most cetaceans are included, eventually. As are most primates. And certain insects. And of course, there are the rats—

Rats?

But that isn't too surprising, is it? White lab rats were the first ones transformed. Your scientists utilized them as test subjects. Several years before your personal transformation, they were given enlarged intellects and enduring bodies.

(Silence.)

And the lineages are not finished. Each new species intermixes with the others. They interbreed, on occasion. Millions of hybrids live for a breath, or for a million years.

(Silence.)

Then comes the exodus to the stars, and your descendants meet transformed entities from alien worlds. Again, genes and memes and other hallmarks are shared, and even more advanced creatures are born. We would show you everything, but frankly, you lack any of the perceptive powers needed to appreciate this magnificent epic.

So when do you finally pop up?

We don't just "pop up," sir.

You know what I mean.

A long time after your time, sir. But since we aren't chronologically impaired like you, we are always everywhere and at all times.

You lucky sons of bitches.

An ironic phrase, that.

Why?

Perhaps you've already guessed, sir. What we are doing here, in the very simplest terms, is studying our family tree.

(Silence.)

More to the point, we wish to identify the ancestors most related to us.

Most related, huh?

It is a subjective process. Laborious, and time consuming. But of course—

You're not chronologically impaired.

And we appreciate hard labor, too. Which should be enough explanation to allow you to do your critical part in this enterprise.

Which is what?

Make your best case, sir. Tell us why we should consider you, above all other candidates, to be one of our distant but most cherished ancestors.

(Silence.)

Take your time, sir. Consider your words carefully.

(Silence.)

We can wait, sir.

(Silence.)

Sir?

What it is ...

Yes, sir? What is it?

I don't want you.

Pardon, sir?

As my descendants. I don't want to have you.

(Silence.)

You're meddling and stuck-up and impolite when you're not being out-and-out rude, and I don't like you, and I don't want to think about you in any way shape or form being even distantly related to me. Am I understood?

(Silence.)

I'm sorry. But that's just how I feel.

We appreciate your candor, Sir.

My advice? Talk to the rats. They might want to claim you.

(Silence.)

But you already have, haven't you?

(Silence.)

Shit, you started with the rats, didn't you? The hell, you did! I know you did! And what did the little bastards tell you? What—?

Good-bye, sir.

Get lost, they told you. Didn't they?

Thank you, sir.

(Laughter, breathless and loud.) □



MARS

Ever since Roswell, humans have wondered whether aliens walked among us undetected. But what is it that the aliens wonder?

IS THERE ONLY ONE HUMAN

BY LAWRENCE WATT-EVANS *Illustration by Chris Mars*

THE SPEAKER OF THE HOUSE STARED at the President Pro Tem of the Senate. "You can't be serious," he said.

"Oh, yes, I can," she replied. "I'm very serious."

"But he's the President of the United States! I know he's not our party, but he can't ... I mean, you're *sure*?"

She nodded.

"What about the vice president? The Cabinet? Are any of *them* aliens?"

The senator glanced at the office door, making certain it was securely closed—it would not do to have anyone overhear. "Human, all of them," she replied. "Not a single extraterrestrial in the lot."

"But how could this *happen*?" the Speaker protested. "How could we have completely lost control of the executive branch? Isn't there something we can do?"

She shrugged. "Do you have any suggestions, Mr. Speaker?"

He looked helplessly around the office. "Is it too late to make a substitution? Can't we infiltrate somewhere? I mean, leaving the country in the hands of *humans*—it's not safe! How could the Commission ever have let it happen?"

"Someone got careless, I suppose."

"Carelessness on that level is the exact reason we came here in the first place! Are we getting as sloppy as the humans, now? Did someone get overconfident just because their Cold War has been over for a couple of decades?"

The senator shrugged, a human gesture she had become rather fond of.

"We have no way to infiltrate the White House and replace him!"

"Oh, we can certainly get in there," the senator said. "We have the equipment—but we have no one accredited to take the job, and no costume ready. It would take weeks to grow a disguise good enough to pass muster."

"Well, something must be done, and immediately!" the Speaker said, getting to his feet. "We'll just have to remove the president and vice president. I'm next in line, and I can get some of our people into the Cabinet and line things up for the next election."

The senator was silent for a moment, then said, "That's a bit drastic, isn't it?"

"It's a drastic situation. We can't trust humans with spaceships and nuclear weapons!"

"Should we contact the Commission first, to let them know our plans?"

"There isn't time; the next relay ship isn't due for almost a month. They've always trusted field agents to act responsibly, and I think it would be totally irresponsible to leave a human president in the White House."

"It's your decision, sir—you're the senior agent—but I admit I'm a little reluctant to interfere so directly. Removing both the president and vice president ..."

"It's necessary, clearly," the Speaker told her. "We'll go tonight."

THEY HAD REMOVED THEIR DISGUISES, OF COURSE—IF BY SOME horrible mischance they were spotted, it would hardly do for the Speaker and the President Pro Tem to be seen sneaking into the president's bedroom. The senator had suggested substituting some other human guise, but the Speaker had refused, for two sound reasons: *Nobody* had any business sneaking into the president's bedroom, and besides, it would take too long to grow them.

If anyone saw them, that person would probably assume he was dreaming, and certainly wouldn't be believed if he talked about it later. Two three-foot-tall aliens creeping through the White House corridors, using mysterious machinery to open locks and evade security devices, would surely seem more like a Secret Service agent's nightmare than a real possibility.

They moved silently down the corridor, thanks more to a dampening field than any natural stealth, and used light distorters to make themselves effectively invisible in the shadows whenever they had to pass near a human being—though the distorters had the rather severe drawback of impairing the users' own vision as well, limiting their usefulness.

The door to the presidential bedroom popped open at the touch of a handheld device, and they stepped cautiously into the darkened room ...

And the lights came on suddenly, leaving them blinking foolishly at the sight of four Secret Service agents pointing weapons at them.

If anyone
saw them,
that
person would
probably
assume
he was
dreaming...

And the weapons weren't the standard-issue human-made 9mm automatics, but Krung neural suppressors.

"Well, I'll be damned," someone said, and they looked past the black-suited guards to see the president standing beside his bed, wearing a bathrobe and slippers. "They told me they'd spotted some extraterrestrial shenanigans goin' on, but I didn't think they'd actually catch two of you sneakin' in here!"

"Urgh," the Speaker said.

"Now, just who are you, and what did you boys want with me?"

"Uh ...," the President Pro Tem said.

"This one's not a boy, sir," one of the Secret Service agents said, gesturing at the senator. "It's a female."

"Oh? How can you ... no, don't tell me."

The Speaker and the senator looked at one another. No human would have recognized the senator's sex—which meant that though the president was human, at least one of his guards was not. And judging by the Krung weapons and all the rest, the president knew it.

That changed everything. She asked, "What's going on? Why weren't we told?"

The president laughed. "Seems to me that it's *you* who have some explaining to do, little lady! Who are you two, anyway?"

"I am Heo designate Pa-je-rin, from

the fourth planet of Epsilon Eridani," the Speaker said.

"The Speaker of the House of Representatives, sir," a Secret Service agent explained.

The Speaker and the senator looked at one another again.

"It's a setup," the senator said. "An ordinary agent wouldn't know your name."

"Probably a test of some kind," the Speaker agreed. "I suspect we just flunked."

"I'm afraid so," the Secret Service agent said. "The Commission was considering you for a new post, now that we're turning Earth over to the natives, and set up this situation to see how you'd handle it. I think if you go back through the e-mail you've let pile up over the last few weeks you'll find some interesting reading."

"I don't have time to read my own e-mail!" the Speaker protested. "I've been busy running the country! We didn't want this one to fall apart the way the Soviet Union did ..."

"Running the country is *my* job, Mr. Speaker," the president said mildly.

The Speaker glared at him with immense green eyes. "It shouldn't be!" he retorted. "You humans would've blown each other up 50 years ago if we hadn't intervened!"

"That was then," the Secret Service agent replied. "This is now. You really should have kept up on the reports, Pa-je-rin. We've been discussing a gradual reversion of control for the past two years."

"I saw some of the discussions, but I didn't know it was being implemented ..."

The Secret Service agents didn't reply; they just stared at him over their Krung suppressors.

"Someone should have told me," the Speaker protested weakly.

Continued on page 87

Readers picked
"Terraforming Terra" as
our best novelette of 1998.
Now Jack Williamson
returns to try to save
planet Earth one
more time.

KIDS CAN BE CRUEL.

"Hey, Slit-Eyes!" Arne used to yell at Casey.
 "You're nasty black all over. Go take a bath."

We were creators, my father used to say, cloned to re-create the Earth. The fifth generation, growing up at Tycho Station on the Moon, we were training for our great mission: to terraform the planet, which had been swept clean of life by the killer impact.

Casey had a Chinese face, black as the sky. Arne liked to tease him for that, though the rest of us were just as different. Pepe was too brown to tan. Tanya had eyes as dark as his, and straight black hair. Arne and Dian were as pale as their holo parents. Casey took the kidding patiently till he heard about his natural father.

engines of creation

BY JACK WILLIAMSON

We were in the holo room. Speaking from the tank, my own holo father told us the story. The man who called himself K.C. Kell had been a security guard at the White Sands Moon Base in old New Mexico. The falling impactor caught him on duty at the launch site, defending the escape plane from the terrified mob fighting for space aboard. He abandoned that duty in the last frantic minutes and forced his own way aboard with his woman friend, who said her name was Mona Lisa Diamond.

"Casey had a gun," My father said. "His own ticket to the Moon. Cal DePort had no time or way to get to get them off the plane. Or off the Moon. He made room for them at the station and finally decided that they had displayed useful genes for survival. He stored their cells in the cryonic vault." He nodded affectionately at Casey. "That's why you're here."

We knew our natural parents from their robots and their images, but we had never seen Kell or Mona until my father booted their holos into the tank. Kell stood grinning at us, short and muscular like Casey, with the same black Chinese face. He was naked to the waist, the way my father said he came aboard. The tattooed flags of Mexico and China were crossed on his smooth black chest, the name El Chino red-lettered above them.

Mona stood close beside him, his arm around her. Wearing a yellow jumpsuit, she was half a head taller than he, her skin as white as

and silent image in the tank, which was blind to her. "For money?"

"The old Earth was never peaceful," My father sighed. "People used to fight for power or territory or just because they worshipped different gods."

"Our new world will be better," Casey grinned at my father. "We'll make it better."

"You?" Arne scoffed at him. "You sneaky clone of a black hit man. He's what made the old world bad."

"Maybe he was a hit man," Casey shrugged, trying to be reasonable. "But the men he hit were worse. Men selling bad drugs to innocent people."

"Hah!" Arne snorted. "A hit man's a bad man."

"Maybe he had to be bad," Casey shrugged again. "Because his world was bad. We can make a world where I'll never have to kill anybody."

"So you want to be a coward?" Arne laughed. "Black outside, yellow inside?"

Tanya and Dian were staring at them. Tanya whispered something. Dian tittered. Arne grinned at them and shook his fist at Casey. "If you're afraid to be a hit man, I dare you to hit me."

Casey stood a minute looking hard at Kell and Mona and my father in the tank. I saw his lips quiver as if he wanted to cry, but then his black face set hard.

Earth! This was a moment I had dreamed about all my life.

Dian's. Pale gold hair fell around her shoulders. She looked older than Kell, with tired lines around eyes as blue as the seas we could see on Earth. To me she was beautiful. Casey loved her from that first moment. He asked why she hadn't been cloned along with him.

"Ask the computer," My father shrugged. "It makes the choices. But maybe—"

"Maybe what?" Casey asked when my father frowned and stopped.

"The original team members had all been scientists or experts, selected for their fitness for the mission," He frowned at Mona and Kell. "They didn't fit the pattern."

"Why not?"

My father frowned again, hesitating. "Kell didn't like to talk about himself, but he did admit that he had been a hit man for an international narcotics syndicate."

"Hit man? What's that?"

"A professional killer." The old Earth was strange to us, and my father had to explain. "Lawmakers had forbidden traffic in certain narcotics, drugs that many people wanted to use. Trade in them became an illegal but profitable business that underworld syndicates fought to control. Kell admitted that he had been a gunman and a spy for one of the syndicates."

"As for Mona—"

He nodded at her. Standing together in the tank, she and Kell looked as live as we were. Unlike our parents, however, they had come aboard with no interface software installed in the computer. Their images lacked animation programs to make them interact with us, or even look entirely alive.

"She came from poor hill people on the east side of North America. The name on her passport was Payreen Sutt. She had been a dancer, and her manager invented the Mona Lisa name to fit the da Vinci painting she had tattooed on her belly. She and Kell were in trouble with the law. They seem to have come to our New Mexico base with dreams of getting away to the Moon, even before the impactor gave them the opportunity."

"He killed people?" Dian whispered, backing away from Kell's dark

"Thank you, sir," he spoke very politely to my father. "I'm glad to know my father was El Chino, and proud to be his clone. If he had to be a hit man in that bad old world, I have to do what I have to do right here."

He balled a dark fist and sent Arne toppling across the room, blood streaming from his nose.

NEVER REALLY FRIENDS, ARNE AND CASEY LEARNED to get along, at least most of the time. We listened to our parents in the tank and read the records they had left for us, learning what we were and why we were here, learning science, learning to use the instruments in the dome. Arne studied terraforming and the geology of Earth with his holo father, who had written books about them.

Casey studied with us, but he wanted more. He ran the holos of Mona and his clone father, ran them again and again, listening to every word they had recorded. Only ghosts in the tank, they never answered questions, or even seemed to know he was listening, but he made up his own romantic stories about them. He made them heroic.

"I think the bolide came because the old world was so bad," he told me. "People were starving when there was food, people were sick when there was medicine, people were fighting with no good cause. If El Chino and Mona were outlaws, that's because the laws were bad. If they took money from the rich, they gave it to the poor. They were in love, and hunted by evil men trying to kill them. They fought and risked their lives to get on the escape plane. Your father saw how great they were and saved their genes because the mission needed them. Maybe El Chino was a hit man, but I'm glad to have his genes."

Casey always longed for a way out of our narrow tunnels. He used to climb into the dome and stand gazing down at the hangars and the spaceplanes on the mooncrete flight strip down below the crater rim.

He pored over training manuals. When he had grown large enough, he trained in the flight simulator. He used to get into space gear and cycle out through the air lock.

"I like to climb into a cockpit and study everything," he told me. "When it's time for us to go back to Earth, I want to be the pilot."

That, I thought, was how he meant to prove that he was born with El Chino's survival genes.

THE WHOLE STAFF, ALL FIVE CLONES OF THE FOURTH GENERATION, HAD gone down to Earth a thousand years ago, leaving only robots to run the station. My clone brother's last report had ended with the words, "test disaster strike again."

Something had struck. Earth hung huge and still in our dead-black sky, looking nearly close enough to touch when we saw it from the dome. Waxing and waning as we swung around it in our slow lunar orbit, it spun faster through its own days and nights. The face of it was frightening. Even with naked eyes, we saw that green life was gone from the continents. The seas were blue as ever, but the land was white as the blazing spirals of cloud.

"From ice and snow?" Pepe asked my robot father when he took us to the telescopes to see the mystery for ourselves. "Another ice age?"

"Something stranger."

"Like what?" Arne asked.

My robot father himself seemed strange enough to me. He was only a man-sized figure of stiff, gray plastic till the computer activated the interaction software installed before the impact, but that could make me forget that he was not as alive as I was.

Now he stopped and stood frozen till the computer jerked him back to life.

"No data," he muttered. "No revealing data."

WE GATHERED THE DATA WE COULD. TANYA AND PEPE SEARCHED the computer records of the last thousand years, since our siblings of the fourth generation found a human civilization restored at the mouth of the Nile.

"Something hit it," Pepe told us. "Hit it hard."

They had called us into the dome, high on the north rim of Tycho, for their briefing. The full Earth shone huge and deathly white in the dark night sky, the dead craterscape below us a ghostly gray in its light. We were only in our middle teens by then, but he and Tanya were already very serious about the mission, with no time to waste.

Pepe was still boyish and slight, still shorter than Tanya, but intense and grave about the problem. Tanya was already a woman, fair-skinned and full-breasted, far more lovely than Dian. I was hopelessly in love with her, heartbroken because Pepe was the one she preferred.

We stood around the big telescope and the monitors with their images of Earth. Pepe reviewed the history of the last expedition. The whole team had gone down to Earth. They never returned. Although much of the planet had been infested with a deadly breed of mutant insects, their radio reports told of a thriving human colony at the mouth of the Nile, grown up around a towering Moon temple and colossal silver statues of the five of us.

"Things seem to have gone well for the next four hundred years." Standing beside him at the monitor, Tanya showed us the Earth images the robot had taken. "The killer insects were finally beaten."

Image by image, the black patches they infested shrank and finally disappeared. Green life spread over all the continents, and the colonists had followed. She magnified spots of East Asia and South America where Pepe pointed out what he said were roads and cities.

"It looked like our work was done," she said, "till something went wrong. Terribly wrong. In just one year, all that green life was gone. The whole Earth turned to the white you see now."

"It's dead?" Arne glanced up at the bone-white Earth and shrank back from it. "What killed it?"

"We have a clue." She pulled up another image and let the tiny red arrow of her laser pointer dance around it. "Look at that. Tell me what it is."

The laser found a tiny bright dot on the white Earth. The image changed. She found the dot again, black now, on the white waste of tropical India. She twisted a knob to swell it from a dot to a tiny black globe.

"An asteroid?" Arne asked. "So close?"

"Too close," Tanya said. "But maybe no asteroid."

Pepe had her run three more frames that caught the object in transit across the full Earth.

"That's enough to bother us." He frowned at the monitor. "The rigid apparent motion puts it in low orbit, down near Earth. We can estimate the diameter, something under one kilometer."

"So?" Arne muttered. "If it's no asteroid?"

"I don't like the shape," Tanya said. "A perfect sphere. Any natural mass that small has too little gravity to shape it like that."

"Unless it's water ice," Pepe said. "Or formed from some other natural melt."

"Something artificial?" Arne glowered at the little black disk, now over the white spiral of a great typhoon on the blue Pacific. "An alien spacecraft? Space invaders that have devastated Earth?"

"We considered that," Tanya shook her head. "But we know we've been alone in the solar system. The stars are so far apart that space war is just too unlikely."

"What else?"

"Riddles," Pepe said. "Looking for answers, we've studied the spectrum of Earth. Atmospheric oxygen content has fallen, carbon dioxide risen. Ice caps have shrunk. Global temperatures are higher. Climates have changed, deserts grown. Although air and ocean circulation patterns showed little change, we see great clouds of white dust that hide whole mountain ranges."

"Riddles." He scowled and shook his head. "No solutions. We see nothing that should have killed the planet, but every sign says it's dead."

THE DAY WE TURNED 21, WE GATHERED AGAIN UNDER THE STATION dome. Ink-black shadow pooled the crater pit. The full Earth stood where it always did, high in the black north sky, blazing down on the cragged wall that curved east and west of our high perch. Africa was a wide, white patch on the sea-blue planet. Lake Victoria looked larger than the old maps showed it, a great blue jewel shining at its heart.

Searching again for any hint of humankind, we traced the Nile. Our maps showed the green streak of life it had drawn through the deserts to its delta and the sea. Now it was only a thin dark line. We found no dam, no city, no green of cultivated farms.

The Mediterranean was landlocked now, shrunk to a great salt lake since some geologic spasm had raised Gibraltar. A new bend had diverted the Nile into the Red Sea. The telescope showed a waste of long white dunes on the deserts west of the river, and a plume of white dust that reached far toward Asia. We scanned the site where our siblings had found a new city where Alexandria once stood and found no hint of anything alive.

My holo father called us down to the dining room to talk about the mission. Standing at the head of the long table, Arne squinted into his laptop and read his latest data on air temperature, ocean circulation, ice cap retreat, planetary albedo. Casey asked what it all came to.

"I don't know." Big and blond as his Viking ancestors, but perhaps not so bold, Arne bristled as if the question offended him. "I'm afraid to know. I hope we never know."

"We had better know."

"Maybe not." Arne grew very grave. "Consider our responsibility. We've found no native life. The few of us here at the station are very likely the only life left in the solar system. So far as we know the only life in the universe. We must conserve it."

"If life has been wiped out, we must bring it back."

"Our duty is to the mission." Very quietly, Casey agreed. "Whatever hit the Earth, we must cope with it. If life has been wiped out, we must bring it back."

"If we can," Arne made a stubborn face. "Whatever killed the planet would likely kill us."

"We've seen no proof of any invaders," Pepe said.

"Whatever happened to Earth," Casey said, "we're here to restore it."

"We're here for the mission." Arne's face had a stubborn set. "We must protect ourselves for its sake. Our duty right now is to gather the data we safely can and record it for later generations—if there are any later generations. Our first priority is to care for ourselves."

"We can do more," Casey shook his head. "We can design landing probes to look for data and send it back. But when the time comes, we'll have to go down to look for ourselves."

"No!" Arne blinked and stiffened. "Think of the danger. Even a probe might expose us. The invaders would have wiped us out if they'd ever found us."

"So?" Casey's voice grew sharp. "What do you want us to do?"

"Keep under cover. Do nothing to give ourselves away. Hope future generations will know enough about the aliens to get a better break."

"Hope's not enough," Casey gestured to wave it away. "We don't know that anything alien hit the Earth. If we do nothing, we defeat the mission. If there's a risk, we have to take it."

"Do we?" Arne tried to argue. "Let's not waste ourselves. Certainly not until we've learned all we can. Don't forget that culture on the Nile. People as smart as we are, armed with all our science and technology. They had their chance to save themselves. Till we know why they failed, we can't pretend that the station is immune."

"Suppose we die?" Casey shrugged. "We'll be cloned again."

He didn't mention Mona, but he must have been dreaming of another life with her.

"Unless—" Glaring, Arne shook his head. "Unless the aliens find us."

He demanded a vote. Dian sided with him, but the rest of us stood against them. We agreed to send a light plane with a crew of two to survey the Earth and its vicinity from low orbit, send back reports of what they found, and finally land in north Africa. Casey was eager to pilot the craft. Arne dealt cards to pick the other crewman. The first blackjack fell to me.

2.

WE LIFTED OFF TOGETHER, CASEY AND I. THE CRATER BEHIND US yawned deep in the Moon's gray face, the long, white scars of the impact that formed it spread out to the blazing dark of space. It shrank as we lifted, shrank till the Moon was a dwindling gray ball adrift in infinity. Earth looked smaller still. The Milky Way wrapped us in a diamond-dusted belt of remote and ruthless splendor.

Staring from the cockpit, I cringed from a sudden sick longing for the comfort of our snug little burrow. The void around us was too vast for me, too old and complex and strange. How could the fate of mankind matter in this infinite cosmos where blind chance was king, where another chance bolide might strike at any moment to end all life forever?

"Great!" Casey grinned and waved a lean, black hand across the waste of stars. He liked to copy El Chino's accent. "Ain't they great?"

His elation was hard for me to share. Even before the takeoff, my own feelings for the expedition had been mixed. I had been no eager volunteer. With no special skills of any sort, I was only the mission

historian, my job simply to see that good records were kept for the chosen generations to come after us. Thinking of the dead Earth and the mystery of its death, I had little hope that we would ever get back to the Moon with any useful records at all.

I voted for the effort, however, because the mission required it. And, like Casey, I had little to lose. The others had sorted themselves into affectionate couples: Arne and Dian, Pepe and Tanya. I had no lover to leave behind. Casey had only his dreams of Mona. If the computer ever cloned them together. Although I sometimes felt that he was too conscious of his outlaw father and too anxious to prove the worth of his genes, we got on together.

His cheerful grin surprised me now.

"Adios to Arne Lindert!" He gestured as if to sweep the diminished Moon and Arne's blustery ego into oblivion. "Ain't it a great break for us? Shut up all our lives under the dome like bugs in a bottle, but look at that!" He stopped for half a minute, turning in his seat to survey the diamond field of stars. "Our own playground now."

"Or battleground," I said.

"If we find anybody to fight." He shrugged. "Don't forget my Dad. Anybody got in his way was just another job he got paid to do. I'm El Chino again and proud to be. Anybody don't like us there, we'll show 'em what we are."

I wasn't quite so ready, but still glad to have him with me.

DOWN TO GEOSYNCHRONOUS ORBIT, WE FLOATED FOR weeks over the Americas, weeks over East Asia, weeks over Africa. The ice-white land was hard to distinguish from the polar snows. Searching with binoculars and telescopes and spectrometers, we found no signs of life, no alien monsters either.

"Dead," Casey muttered more than once, shaking his head at the bleached world beneath us. "Maybe dead forever." Yet his heart for the adventure was never lost for long. He always looked for new clues and explored new plans. "You know, Dunk, I've got the feel of the mission now. It's something great. Worth dying for. Dying a dozen times if that's what it takes. Tell Arne he ought to be with us."

Pepe had promised to track us and have somebody listening when we were in radio range of the Moon. We described what we saw, transmitted our instrumental data, asked for news from those we had left behind. Pepe answered whenever he got a message, but there was never a word from Arne.

We dropped to lower orbits, rounding the planet every three hours, then every 90 minutes, swinging north and south to let us see far toward the poles. Still we discovered nothing green. Crossing North Africa, crossing it again, we studied the site of that city our siblings had found on the Nile.

The buildings had crumbled into a glaring white snowscape of wind-driven dust, but the streets had left a grid of faint dark lines along the river's edge. We found the radial runways at the airport and the road that led through the city. The gigantic silver statues of our clones still stood in line along the avenue that led to the temple of the Moon, though its tower had tumbled to rubble. My recollection of what my clone father had written about the landing gave me a strange feeling when I found his monumental figure towering out of the drifts.

"There's Arne, when he used to be a god." With a sardonic smirk, Casey pointed at an age-stained colossus that leaned into the dust. "Let's let him know."

The full Moon was out of range, above the dark side of Earth. We called the station when it came back overhead, waited for an answer that never came, waited and called again, heard only the rattle and crash of static.

"Tell the robots," Casey said. "The computer will record it."

I called again, with a code to wake the robots.

"That's enough," Pepe's voice cackled out of the speaker. "Sorry, Dunk, but Arne has taken charge. He doesn't want you calling, doesn't want us to answer."

"Why not? We've met no aliens."

Each reply took three long seconds to get back from the Moon.

"No matter. He's afraid they're listening."

"Still hunting us, after four hundred years?"

His hurried voice dropped lower. "If you thought you knew Arne, he's gone paranoid. He found Casey's gun. He's ugly with it. Trusts nobody. Orders us all around. He's taken Tanya as well as Dian. Treats me like a slave. Threatens to throw me out in the cold if I cross him. 'I wish—' His voice caught. 'I wish I'd gone with you and Casey.'"

"Just hold out till we get back."

"Don't!" His voice came sharp. "Don't try to come back. Arne's afraid the aliens could follow you back. Even if you got here, he wouldn't let you in."

Startled, I asked him why.

"He's the alpha male, since you and Casey are gone. He enjoys the job."

"Can't you compete?"

The three-second signal delay grew to half a minute.

"I tried." His voice was hoarse and low when it finally came. "I stole the gun while he was asleep, but Tanya—" Emotion choked him. "She was with him in the bed. She woke and got between us. You know how we were, but now she—she loves him, Dunk. And I can't do a thing."

I tried to ask if he could get away to join us, but his husky voice cut me off before my words had time to reach him.

"It's goodbye, Dunk. I'd like to think Arne's really as crazy as he acts, but—well, you can't really know. He could be right. You say you haven't encountered any aliens, but still you haven't found what killed the planet. The station may really be in danger."

"Or maybe not," I tried to say. "We've heard nothing electronic. I doubt that anything here has the technology to listen."

"... sorry, Dunk." He hadn't waited for my reply. "Arne wants us off the air. And finally, Dunk—" His voice fell to a whisper. "I hope to know you again in later generations, if no aliens hit us now."

AIRBREAKING TO SAVE FUEL ON THE FINAL ORBIT, WE GLIDED OVER the Indian Ocean and down into Africa's Great Rift valley to land at last on a wide, white beach between the ancient cliffs and a fresh-water sea. Waves danced on the water, but nothing else was moving.

We stayed aboard two days, gathering data we hoped to save for anybody who came to follow us. The spectroscope showed atmospheric oxygen a little low from lack of green life, carbon dioxide a little high, but nothing stranger: no toxins, no microorganisms, nothing to alarm us.

On the third day, Casey ventured off the plane.

"Good luck, Dunk." He took my hand before he suited up. "It's been good fun. You'll soon know if Arne's right about his fatal agent. If I don't get back, keep your records and get them to the robots. Whatever happens here, I want another chance for us. And my own chance—"

His voice caught.

"My chance to live again with Mona."

I watched while he dug a long furrow in the loose white sand, dropped seed pellets coated with fertilizer, covered them carefully, and knelt a long time at the end of the row. Flodding down to the beach, he brought buckets of water to fill his furrow.

"Test number one." He stood up to call on his helmet phone. "You'll

see the results in a week. If life can exist here again, the seed will sprout. You'll see a show of green. If Arne's right, if the world's gone alien, you won't. Now, number two."

"Don't!" I saw him unsealing his helmet. "Wait to watch the seed."

He swept the helmet off and stood grinning up at me, breathing deep. I thought I saw him sway, but he was only bending to get at the seals on his boots. He stripped off the suit and the yellow liner under it. Nude and black, he raised two fingers in the V-signal we had seen DeFort make on the holo of the escape from Earth, shouted something that I couldn't hear, and ran down to the water.

Splashing out till it came to his waist, he dived, learned to stay afloat, paddled so far out I was frightened for him. Wading back at last, he waved at me and lay a long time basking under the sun before he gathered up his gear and climbed back into the air lock.

"A virgin Earth!" He bubbled with enthusiasm. "Swept clean of all the weeds and bugs and rival species our ancestors had to fight. A fresh field waiting for us to plant our own new Eden."

"And Arne's aliens perhaps the new Satan, waiting to hand us the apple."

"Maybe." He shrugged. "I hope not."

NEXT DAY I WENT OUT WITH HIM, OUR SPACE GEAR LEFT ABOARD.

Earth! This was a moment I had dreamed about all my life, waiting for it with a mix of eagerness and dread. The sun was high. Its dazzle on the sand and the surf hurt my eyes. I turned my face and felt the wind, the first I ever felt. It was hot, with a dry bite of dust, yet I caught something of Casey's elation.

"Come along!" He darted ahead of me toward the sea. "Out of our little pit in the crater rim, into the universe!"

For all our work in the centrifuge, Earth gravity was still a heavy drag, but I trudged after him and helped carry water to fill the furrow again. I waded out with him when that was done, dived and struggled and waded out, lay resting on the sand till a tingle of sun-burn drove me back aboard the plane.

In just a few days the rising sun gave the furrow a faint tinge of green. Green blades thrust up. Leaves unfolded. A bright green line ran through white sand toward the sea. Casey spent his days feeding the plants, raking the soil around them, improvising tiny tents to shelter any that seemed to wilt under too much sun. He made me call the station to let him rave about their swift growth and the sheer wonder of life. Nothing came back from the Moon.

We stayed there on the beach through a season of rain and another of sun. The white dust made fertile soil. Casey nursed the plants and rejoiced in the air and sea and sun. I got a tan and built strength to take the gravity. Our plants grew, hardy shrubs and grasses that bloomed and scattered seed. Fired with that promise, we took off again to spend our fuel reserve cruising the planet at stratospheric levels, sowing life-bombs loaded with seed over the continents and oceans.

That done, we came down again to wait out our current lives on the high plateau between the Rift and the Indian Ocean. A pleasant spot, though volcanic plumes sometimes tower over Kilimanjaro, far off in the south, and dust storms sometimes turn the sky to milk. Year by year, our small green island spreads wider across the barren plain.

We work together in the garden that feeds us. There's no frost here, and we've brought no pests or weeds. Casey reads Shakespeare and enjoys declaiming great speeches in the style he learned from the holo dramas in the hall of treasures that Dian is hoarding for worlds to come. He is teaching me the martial skills he learned from a holo El Chino left him. Excellent exercise, though perhaps of little use for talk with any aliens that might appear.

We no longer expect trouble from them, but I suppose Arne does. We never get a response from test signals to the station, yet I continue keeping weather and seismic data, writing up the history of our work, beaming reports toward the Moon. Waiting Arne out, we trust that the robots will still be there after he is gone, the computer recording our transmissions for whoever follows us. Casey has

sent a message—a love letter, I believe, though he didn't let me read it—intended to be waiting for some future Mona. We do expect to live again.

3.

WE ARE THE SIXTH GENERATION.

I have died and died again, leaving my bones in unmarked and forgotten places, yet as I read the narratives of our holo parents and our own earlier lives, I can feel that I have always been the same individual self. Always cloied from identical cells in the identical maternity lab, growing up with identical companions in the same lonely pit in the Tycho rim, trained for the same great mission by the same robots and the same holos, we were free from the thousand distractions that used to draw identical twins in the old world apart. I always know that each new life will find its own new direction. Yet, after so many incarnations, I sometimes feel that I am one single immortal.

Agnes passed since Casey and I reseeded the dead planet. My father says our rebirth was so long delayed because the last Arne had been terrified of aliens on Earth, afraid they would destroy the station and end our chances for the mission, perhaps even more concerned for his own precious skin.

Our early years followed the same familiar track, but the Earth we watched had changed again. An ice age held it. Antarctica had grown enormously. Europe was white. Glaciers spread south from the polar cap to the Himalayas and across most of North America. Yet Casey and I had not failed. The white dust was gone. We found a broad belt of living green across Australia and southern Asia. Africa and the Americas bewildered us when we had grown old enough to be bewildered.

Our mission to restore it looked to be an awesome challenge, but this time the computer had cloned Cal DeFort to help us face it. Perhaps the last Arne, in his dread of possible alien invaders, had expected us to need DeFort, but the current Arne was never happy with him. Cal was a gangly redhead, freckled and pugnacious, bitter because he had no father.

His original live father died on the first landing on Earth, before programs had been created to keep anything of his mind alive in the tank. The robot father designed to care for him had been lost on Earth. Growing, he always tried too hard to make believe he never needed him, yet always felt too proud of who he was.

"You know my Dad," he used to boast. "The genius who built the station and saw the impact coming and brought us here to terraform the Earth. I'm him, alive again and still the boss. I always will be."

Arne never agreed. The battles began when they were five years old. They used to get black eyes and bloody noses from knocking each other off the floor in the Moon's light gravity. Arne was taller and bigger and stronger, but Cal was never willing to quit till Dian stopped them to let her look after Arne's bruises. She loved Arne. Cal never seemed to care if anybody loved him.

OUR HOLO PARENTS KEPT US BUSY AS WE GREW UP, STUDYING THE science and skills we would need on Earth. Cal was always eager to get there, to explore the planet and find a site for our first colony. Sad that the first expedition had not been able to leave any animals, because there would be no food for them till vegetation grew, he learned all he could about the frozen embryos and the equipment we would need to breed and nurture them.

His enthusiasm alarmed Arne, who was afraid for anybody to go back, afraid of the alien invaders his elder self had feared, afraid to do anything that might betray the existence of the station. What we saw in Africa and the Americas frightened him.

"Asia looks alive," my holo father said. "The plants we seeded are apparently thriving, ready to feed animals when we can breed them. I hope to feed us. But Africa?" He shook his head with an impatient frustra-

tion that made him look ready to climb out of the tank and take off to look at for them. "And the Americas? What the hell has happened to them?"

Looking for answers, we haunted the dome through all our childhood, squinting into telescopes and spectroscopes, pestering the robots and our parents, keyboarding queries to the master computer itself. The world no longer fit our maps. Glacial ice, piled up on land, had lowered the oceans, dried up the strait between Siberia and Alaska. Gibraltar had closed, the Mediterranean shrunk to a long, salt lake.

That sterile whiteness had vanished from Africa, but nothing green had grown to replace it. The Sahara was brown again, but the rest of the continent had turned dark red. The Nile was a narrow red line. Red rimmed the Mediterranean lakes. Scanning the continent, we found grids of faint brown lines scattered over the south, one at the Red Sea mouth of the Nile.

"City streets?" Cal wondered. "And roads running from them, if Arne's aliens do build cities, running out into that red stuff, whatever it is."

"Which means they're still there?" Arne scowled uneasily. "They've killed our kind of life off the planet to let them take it over. Ready to kill us if they ever detect us."

"Maybe." Cal shook his head. "But Earth's a quarter million miles away. Too far off to tell us much."

The lower half of North America and most of South America looked just as strange, the land an odd greenish-blue, spotted with islands of changing shades of red and orange and gold in patterns turned different every time we looked.

"Nothing I like." Arne scowled at the telescope. "We've studied the spectrographs, Dian and I. We've run computer records." He made an anxious face. "An ugly riddle. It may be life, but not our kind."

Casey asked how he knew. Arne had studied molecular biology. He tried to explain that some molecules twist polarized light. He said our kind of protoplasm gave it left-handed rotation. The tests were difficult he said, and hard to interpret, but he and Dian claimed from their spectroscopic evidence that the life on the Americas was right-handed.

"Alien protoplasm! It must have come from outside the solar system. It could be poison to anybody crazy enough to go down there."

"Count me crazy," Cal told him. "I'm going down as soon as I can."

CAL FIRST SAID THAT WHEN HE WAS HARDLY 12 YEARS OLD. ARNE NEVER wanted anybody to go, but Cal's determination never failed. The year he was 16, he began asking the computer to permit an expedition. When we turned 21, it agreed. He called us into the dome to announce that he was getting a plane ready for it.

"Not yet," Arne looked around to see who might stand with him. Dian nodded. "We've got to be cautious. I don't know what has happened to America, but something alien is certainly established in Africa. The same aliens, likely, that sterilized the planet to let them take it over."

"Maybe," Cal shook his head. "We don't know."

"We know enough." Arne's jaw stuck out, covered with a pale yellow stubble. "And I'm afraid of them. Afraid of whatever it is in the Americas. Too many questions that need more study. I see no reason to risk a landing. Or even to talk about it for another 10 or 20 years."

"Ten or 20 years?" Cal snorted. "I'm taking off tomorrow."

"Think again," Arne dropped his voice. "I won't endanger the station and the mission till we know what we face."

"We'll never know unless we look." Casey turned to Cal. "I'll go with you."

"Sorry," Arne glared at then. "I can't allow—"

"Let them go," Pepe told him. "We've hidden long enough."

"I won't—" Arne scowled into Casey's black Chinese face, glanced uncertainly at Dian and saw that he was beaten. He turned abruptly to me. "Okay. Okay. You go with them, Dank. Keep your records for the future, if we have a future. I'll stay with the girls. We'll try to keep the station going."

He never came back. I believe I am the only man on Earth.

TANYA KISSED ME GOODBYE WITH TEARS IN HER EYES.

"Come back, Dunk." She held me close for a moment. "Come back if you can."

I hadn't known she cared.

Over the inviting green vastness of Asia, we considered possible landing sites. Over red Africa, we debated the nature of those faint gray lines. Over the Americas, we were baffled again when we turned the telescope on those blue-green lowlands and the many-colored highlands. Southern Asia welcomed us with vast reaches of rich familiar green.

When we finally landed, it was in the Vale of Kashmir.

"Paradise!" Cal whispered when he climbed down from the airlock and looked around him. "We ought to name it Eden."

The valley floor was a lush carpet of the grasses that last expedition had sowed. Dense forest clothed the lower mountain slopes. Naked cliffs beyond them climbed stark to the Himalayan peaks that walled us in. We stood silent a long time there, staring up at the snow-crowded summits, inhaling the fresh scents of life, springing on the balls of our feet to test the gravity, stooping to pluck blades of green native grass.

"Damn! Damn!" Breathing deep, Casey stood craning at the needle peaks and the azure sky. "I wish I had the words for it."

When the full Moon had climbed over the peaks into radio range, Cal called the station to report that we had found a perfect spot for the colony. A natural fortress, he said, safe from flood and drought and nearly anything but another impact. Its isolation should help secure it from discovery.

"That's enough!" Dian's sharp voice cracked to interrupt him. "Sign off! Arne ordered you not to alert the aliens."

"No aliens yet," Cal said. "No hint of any high technology. Only those thin lines across the red stuff, almost too faint to follow. We're taking off at dawn for a closer look. We'll let you know what we find."

"Don't!" Arne's angry voice. "Don't throw yourselves away."

"Our heirs will need to know—"

"Stop transmission." His voice rang higher. "Stay on the ground. We won't be coming down to plant any colony, not if you claim a hundred Edens. For the mission's sake, don't give us away."

"Dunk?" Tanya was on the speaker, her voice quick and anxious. "You've done you what you wanted. Can't you come back now? Do you have fuel?"

"Barely enough," Casey said. "If we take off now."

"We're taking off," Cal said. "For Africa and then the Americas. Not for the Moon."

"Dunk—Dunk—"

Her broken voice was cut off.

THE ICE-WALLED VALE WAS SPLENDID BY MOONLIGHT, BUT WE TOOK OFF at dawn. High in the stratosphere, alert for hostile action, we cruised over Africa. No radar locked onto us. No missiles rose. No craft rose to challenge us. Searching with binoculars, we found dark dots in motion on those thin, gray lines. Casey said he had made them out from orbit.

"Traffic," he said. "Roads with something moving on them. Nothing directed at us."

"Cities." He had sketched those puzzling lines and patches on a map of the continent as it had been. There were target patterns of tiny concentric circles, most of them near the coast, three near the mouths of the Limpopo, the Nile, and the Congo, one on the Kenyan plateau, another on the north shore of the Mediterranean lake.

"They have to be cities, because of geography. They stand where we used to live. On rivers or fertile plains."

"So Arne's aliens are really here?" Casey nodded. "And likely not to want us?"

"Could be," Cal frowned at his map. "We don't know. The mission's dead if we do nothing. They may have conquered Africa, but they're still a long way from any colony we might plant in Asia."

Casey was our pilot.

"Pick a point," he said. "And I'll set us down."

WE CAME DOWN AT NIGHT ON THE KENYAN PLATEAU near a line on Casey's map that he thought was a road running down to the Indian Ocean from what he thought might be an alien city. When day came, we found a flint plain around us, grown over with what looked like tall red grass. Kilimanjaro stood far off in the south, a mantle of cloud around the white summit. We waited there for hours, watching, listening. We heard no sound, nothing on the radio. A long, red ridge cut off our view of the road.

"If anybody saw us," Cal said, "they don't seem to care."

Still in radio range, the waning Moon still high, we called the station. I reported the landing and described what we could see around us. We heard no answer. Cal took the mike.

"There's something here," he said. "We see no indication of any industrial culture, no sign of any technology able to cross space. Whatever they are, the creatures don't build long bridges; their roads don't cross large rivers. We get nothing on the electromagnetic spectrum. I doubt that they are detecting this signal."

We waited half a minute and heard nothing from the Moon.

"I hope for more to add," Cal went on. "We're down only two or three miles from the road. I saw something even closer as we came in. Something that could be a habitation. A circular clearing half a mile across, a dome-roofed building at the center. I'm going out to attempt some kind of contact."

CASEY STAYED ABOARD. I CLIMBED DOWN BEHIND CAL, INTO RED vegetation so dense that he disappeared just a few yards away. The air was motionless and oven-hot, almost suffocating. An acrid, bitter scent set me to coughing. In dread of too many strange unknowns, I retreated to the ladder. Thick clumps of saw-toothed blades crowded close around us. Narrow as rapids and tipped with feathery purple plumes, they had the red-black hue of dried blood. They stood twice our height, and I felt lost among them.

"I've seen enough." Coughing again, I shouted at Cal. "It's no place for people."

"Okay." He looked back through the thorny tangle. "Stay here and report anything that happens. If I don't get back, go on to North America."

Picking a wary way through the blades, he vanished again and never returned.

4.

CASEY AND I TOOK TURNS IN THE COCKPIT, WAITING FOR CAL TO COME back out of that tangle of thorns. The slow sun sank toward blue volcanic cones far west of us. A high anvil cloud rose over Kilimanjaro

All five clones had gone down years ago, leaving

in the south and spread to hide the sky. A sudden wind whipped the red-black blades. Lightning flickered. Thunder crashed. Rain and hail battered us. The storm passed. Stars came out. I slept uneasily in the navigator's seat until Casey woke me to watch a red dawn break, watch a red sun rise.

Kilimanjaro stood as serenely high over the crimson landscape as it had stood over our own green world before the impact. No aliens came out of the jungle, but Cal did not return. Our hope began to fade. At noon, over our lunch of the fruit and frozen stuff we had brought from the station, Casey peered bleakly at me.

"Without a weapon, without food or even water—" Gloomily, he shrugged. "I should have gone with him."

"We have his orders," I said. "Report to the station. Go on to look at America."

"So we will." He finished a banana and wiped his lips. "But right now I want to look for Cal." He pulled his boots on. "Give me 12 hours. If I'm not back, take off without me."

Those hours crawled on forever. The afternoon was bad enough, but when the evil spell of that red world began to overwhelm me, a glance at Kilimanjaro could always bring me back to the reality of Earth. After dark I found no escape from the monsters I imagined. Once, trying to break that intolerable anxiety, I opened the lock and looked out.

The blooms that tipped those rapier blades shone faintly, quilting the jungle with a ghostly violet. The stillness was deathly still until I heard a whisper of wind that scattered blood-red sparks, perhaps pollen grains. The humid air was fouled with a faint but sickening stench I found no name for.

I stood an hour there, listening for Casey's voice, shouting his name on the chance that he was lost and wandering through that alien jungle, until shadows began changing into shapes so monstrous that I shivered from a chill of dread and sealed the valve against them.

THE DOZEN HOURS HE ASKED FOR DOUBLED AND MORE. DUSK WAS falling again, and my eyes were blurred and swollen, before I saw him stumbling out of that tangle of red-black blades. His clothing was ripped to shreds, his skin scarred and bleeding. He staggered to the ladder. I helped him through the lock. He reeled into the navigator's seat.

"Take us off," he gasped at me. "Take us off."

Of course I couldn't. He had studied astronautics with Pepe's halo father and trained in the simulator. Had not. All I could do was hand him a bottle of water when his haggard eyes fixed on it. He drained it and sank out of the world before he spoke another word.

WATCHED AGAIN AS LONG AS I COULD STAY AWAKE. NOTHING came to follow him back. He lay snoring in his seat, muttering and jerking now and then as if fighting some invisible enemy. Groggy for sleep of my own, I dropped into the pilot's seat. Sometime in the night he joggled my arm to get me out of his way and lifted us off.

I found snack packets when we were safely in the air, and asked if he wanted to eat. He had me open an aid pack instead. Blood had dried black on long slashes down his arms. His ankle was bruised and swollen. The barbs had left scratches everywhere, swollen and inflamed. He was hot with fever when I touched him.

He didn't want to talk, but he let me help him clean the wounds and spray them with healanol.

It did no good. The spray should have killed the pain, but he said it burned like fire. He was shaking, yet he stayed hunched over the controls, eyes on the instruments. I asked no questions, but at last, when we were in the high stratosphere over the Atlantic, he drew a ragged breath and pulled himself straighter.

"If you want to know—" His voice at first was hoarse and broken.

"If you want to know what became of Cal—"

"If you can talk."

"I never found him." His pale lips twisted. "Never did. But you'll need the story for the records—if we live to get them back."

I found the audiorecorder. He sat there a long time, clutching it in a shaking hand, but silent minutes were gone before he gathered himself to recite our names, our latitude and longitude, the date. He stopped to draw a long, unsteady breath and shake his head at me.

"We searched from orbit for evidence of possible extraterrestrials in Africa." His words were labored and slow when he began, his tone painfully formal, but he spoke more freely as he went on. "Markings we observed from space appeared to be artificial. Down on the savanna between the Great Rift and the Indian Ocean, near what we took to be a traveled roadway, we found ourselves in a dense growth of unfamiliar plants. When Commander DeFort failed to return from a probe into our surroundings, I undertook—"

He closed his eyes and sank down in the seat, perhaps groping for the will to continue, perhaps to phrase his words for the computer and our heirs a thousand years from now. I saw him shiver, but he sat straighter and spoke with a clear and even voice.

"I undertook to follow him through that thorn jungle. It was a dense tangle of dark-red three-edged spears armed with sharp barbs along the edges. It would have been impassable, but the spears stood in thick clumps with a little space between them, far enough apart that DeFort had been able to pick his way through them.

"The soil was loose and sandy. He had left footprints I thought I could follow, yet I had to steel myself again for the search. The tropic sun burned at the zenith. The air was motionless and oven-hot, and the blooms that tipped the blades had a nauseating odor that made it almost unbearably. Sweat drenched me before I had taken a dozen steps. I stopped, looking back at the plane, unwilling to leave it.

"But of course I had to go on. DeFort had been my friend, even back on Earth before we were cloned; our letters and diaries showed that. He had listened to my story, made a job for me at the station, taught me what it meant to him. Anne Linder may want to hear no more from us, but we must get all we can learn back to the master computer. For Cal's sake, anyhow. His own life seemed to matter more to me, there and then, than all the unknown future of the Earth.

"I traced his wandering tracks through the blades for maybe two hours, until I came out into a wide circular clearing that I think is a cultivated field. A small building roofed with a low, black dome stands at the center. It's surrounded by curving rows of low-growing black-leaved plants. Plants like nothing in our botany books. The triangular leaves lie flat on the ground. They make star-shaped patterns centered with bright red, apple-sized fruits.

"The field looked empty, but I felt uneasy enough to want a weapon. With my pocket knife, I cut a spear longer than my body and smoothed the barbs from the base of it to make a haft. Carrying that, I followed DeFort's footprints out across the field. Halfway to the building, I came to the end of the trail.

to Earth a thousand only robots to run the station.

"He must have struggled. The black leaves were torn and splashed with something red. Perhaps the red was only juice from those dark fruits crushed in the struggle, but I think it was his blood. I was kneeling there, trying to interpret the evidence, when I heard a strange bellow and stood up to see something coming fast from the building.

"A thing unearthly as the plants, it was perhaps the size of our old lions and tigers but not much like them. It came hopping high on two thick, long-taloned legs and glided down again on long leathery red bat wings. Its body was covered with slick, black scales that glistened crimson when the high sun struck them. It had two heads.

"The larger head had long slit eyes and a great jaw filled with a double row of long fangs that shone like black glass when it yawned to bellow. The smaller, set far back on its shoulders, looked slick and black as the fangs. It had nearly the shape of a human skull, with huge white eyes that caught the sun like mirrors.

"I stared for a moment and turned to run, but it came at me too fast. On the last long glide, it dived around me and dropped ahead to cut me off from the jungle. The armored eyes had yellow-rimmed pupils that glared at me with a force that paralyzed me. It roared again, with a gust of hot breath that stank like rotten meat. A thin, red tongue stabbed at me like a striking snake.

"I crouched and drove my spear into its yawning throat. The tongue coiled around my ankle and jerked me off my feet, but the spear had found something vital. The bellow became a shriek that choked and faded. The creature crumpled down on its side, the black-scaled legs kicking convulsively. The tongue dragged me toward it, squeezing till it almost crushed my ankle, but then relaxed enough to let me jerk loose.

"Scrambling back to my feet, I thought I was free till I saw that skull-shaped second head come off the creature. Riding the thing, it had held on with four long hooks, sharp red spikes that dripped dark blood when it pulled them out of the creature's back. It rolled to the ground and lay there staring up at me with those huge white eyes. It had a tiny, toothless mouth that mewled at me like a hungry kitten. Unnerved, I just stood there till I saw those spikes gathering under it.

"It was about to jump. I hauled at my spear, but the barbs had stuck it fast in the creature's throat. The spikes were legs, tipped like claws but muscular toward the base. The thing flexed them and sprung at me. I caught it with both hands, like a basketball. It felt slick and colder than anything alive ought to be.

"The spikes were slashing at my arms, trying to grab and hang on to me. I threw it like a ball, staggered back, and limped for the jungle. It came hopping after me, mewling louder. My ankle was throbbing, sprained from the grasp of that slimy tongue, but I got to the jungle far enough ahead. Glancing back, I saw it hopping back toward that black dome.

"Back among the thorns, I dropped flat in a little open space and lay there gasping for breath. I felt sick when I thought what must have happened to Cal. That thing's a parasite. A vampire. It drives those spikes into its victims, rides them, sucks life out of them."

He sat silent for a moment, moodily shaking his blood-spattered head.

"They brought their own bioscans. Nothing in it ever evolved from what we planted in Asia. They're intelligent. And nothing that ought to be here." He stopped to stare at me, his eyes dark-lined and hollow. "I wonder how they got here. And if they didn't kill the planet to make space for themselves."

"GETTING BACK TO WHAT HAPPENED—" WITH A BUEFUL SHRUG, HE stopped to finger a long, red scar across his forehead. "That black vampire had nearly done me in. My arms were bleeding from the slashes. I got lost. Cal had carried the only compass we had. I couldn't see the sun except for glimpses when it was straight overhead. I remember wandering on forever, till I must have passed out.

"This morning I woke lying under one of those thorn trees, aching all over, nearly too cold and stiff to move and still with no sense of where the plane might be. I stumbled on when I could walk and finally came to a rocky point where I could climb out of the jungle and look back to see the plane.

"I struck back toward it and got lost again. Somehow, I blundered back into that cleared circle where I'd met the monsters. I saw crawling things far across it. Machines or creatures harvesting those red fruits. I imagine. They stopped whatever they were doing and started toward me.

"Afraid I was done for, I ran along the edge of the field till I found our footprints, Cal's and mine, where I had followed him into the clearing. Night was close by then, and I felt all but dead, but I was able to follow them back." He grinned at me winily. "Thanks for waiting."

HIS VOICE HAD GROWN HUSKY AND FAINT BY THEN. HE SANK BACK IN the seat, shivering again, stricken perhaps by poison from the thorns, perhaps by some alien virus. I had no idea what had hit him or what to do about it, but I found a blanket and spread it over him.

"Don't you fret," he whispered. "I'm okay. I'll get us down."

Certainly not okay, he smuggled into the blanket and lay there breathing heavily, his eyes closed. With the plane on autopilot, he seemed to sleep. Now and then he muttered words I didn't get, moaned as if in pain, struck out convulsively, dreaming perhaps of his battle with the parasite.

The plane droned on through the high stratosphere. We had taken off in the dark, but we overtook the sun. A flat infinity of slate-gray ocean lay beneath us till at last a thin dark line of land emerged across the horizon ahead. When I looked at Casey, he still lay huddled in the pilot seat. His thrashing movements had tossed the blanket off. I called his name to wake him.

"I think we're coming over America. Can you land us?"

He jerked bolt upright, caught a hissing breath and cowered back, staring at me with blind red eyes, his blood-smeared face contorted with terror.

"Casey? Don't you know me?"

He swayed away from me, his mouth open as if he tried to cry out, but I heard nothing.

"Wake up," I shouted at him. "You've got to take us down."

He flinched farther away, hands lifting as if to fend me off.

"You damn—damn thing!" he gasped. "What did you do to Cal?"

I reached to clutch his shoulder. He shuddered and twisted away. When I grasped again, he struck wildly back with doubled fists and then sank limply back and lay breathing hard.

"Casey, please!"

He flinched weakly away when I reached to touch his face. His skin was wet with sweat, still hot with fever, yet I saw him shivering.

"Casey," I begged again. "Don't you know me?"

He palled himself a little straighter, gazing at me blankly.

"Please! We're close to America. You know I'm no pilot. You've got to get us down."

"Cal?" He shook his head, blinking in confusion. "Who the hell—"

His swollen eyes went wide in recognition. "Sorry, Dunk. I'm not myself." He nodded feebly, and groped for the edge of the blanket to wipe at his face. "I thought—I guess it was a nightmare. I'll try to take us down. I hope to something better than we found in Africa."

5.

HALF HIMSELF AGAIN, SWAYING UNSTEADILY OVER THE controls, Casey took us on toward North America. I brewed him a mug of the bitter tea we grew at the station. He sipped it absently, but still he couldn't eat. His dark jaw set hard, he kept his mind on his tasks, scanning the unknown world crawling back through the haze below, plotting our route on the maps we had redrawn from what we saw from orbit, estimating how far we could go on the fuel left in the tanks.

It must have taken desperate effort. I saw the sweat that filmed his tight, blood-flecked face, saw the tremor of his thorn-scarred hands. But he got us to the continent—one far different from anything on our ancient maps. Seas had shrunk as water froze. Glacial ice now covered ancient Canada and spread east from the Rockies, far across the upper Mississippi valley.

We reached the ice sheet in the latitude of old New England and flew south and west along its edge. With binoculars, I studied the uncovered land until the beige-brown flatness of the springtime tundra gave way to another vegetation. The lowlands looked green, a lighter, bluer green than we had found in Asia. Higher elevations were spotted and patched with a puzzling array of vivid color: red and gold, amber and emerald green, all in varied shades. I offered the glasses to Casey and tried to ask him what he thought. Sitting hunched and grim-faced at the controls, he shrugged and said nothing.

The ice retreated into the mountains as we went on south, but snow still capped the westward summit when he began a long descent. Watching those flecks and splashes of color as we came down, I began to make out trees. With no familiar shape of oak or elm or pine, they grew in small groves and vast forests. Most of them stood straight and tall, spaced well apart, with no undergrowth around them. They were brick red and cherry red, orange and pink, gleaming gold, yellow and bright as flame.

Casey spent the last of our fuel for the landing, gliding low over that exotic landscape until a forest wall loomed close ahead, pulling the nose up to break our descent, dropping at last against the rocket cushion to blue-green velvet and sudden silence. The plane swayed and settled. He sagged weakly back, wiped his sleeve across his face and waved his map at me.

"Mexico ..." He rasped words and phrases one by one as if each took a separate effort. "Old Chihuahua ... Sierra Madre west of us ... Tanks empty ... We're here to stay." The map fluttered out of his quivering hand. "I'm done for, Dunk ... Leave the rest to you ... Watch out ... for anything ..."

Eyes closed, he sank back in the seat, his breath a slow, wheezy snore. I reclined the seat, took off his boots, and spread the blanket over him before I turned to the windows. The flat blue plain spread far east and south. The forest wall stood a mile or so west of us, a towering wall of magnificent trees that seemed to reflect the crimson and gold of the sunset. Strange as it looked, I caught a comforting sense of quiet and peace.

Flying west, we had kept ahead of night, but it was overtaking us now, purple dusk climbing out of the east. Uneasy about the gathering darkness, I found the binoculars and scanned our surroundings. The level plain stretched east without a break to meet the falling dark. I saw no motion in the forest, felt no danger. With Casey seeming sound asleep, I opened the door and climbed down to the ground. The

air was still and cool, sweet with a faint flower scent. I bent to look at the turf and found a yielding carpet of blue-green fibers that felt warm and soft as fur.

The world was silent at first, as if hushed by alarm at our landing, but soon I heard a faint and far-off sound, a high pure tone that rose and trailed and finally died away. It seemed to come from the trees. I walked around the plane to look. Thickening shadow was already cloaking the forest, but sunset crimson still brushed the treetops and outlined the dark peaks far beyond.

She spread her attached

I listened till that note came again, higher, sweeter, quavering, throbbing with a melodic beat I had never heard, till it crested and sank and died away. A bird? I wondered for a moment. My father had played bird holos for us when we were small. We had bird cells in the cryostat. Tanya had begged her mother to clone a canary for her till Arne laughed and said Dian's cat would eat it.

Of course all those ancient birds were gone. Was this the voice of some new species as strange to Earth as the black vampires? Something perhaps alarmed by our landing and anxious to know what we were? I thought it had seemed somehow like a voice, though no human voice, that was calling to me. An insistent voice, almost urgent, that gave me a sense of some intended meaning, yet no meaning I could grasp.

It came again. I started toward it without thinking why. It rose louder when I moved. The timber of it changed. It became a chorus of many voices, singing to a rhythm I had never heard, moving me with emotions I had never felt. A greeting? A welcome? A question about who or what we were?

I heard no menace in it. My haunting dread of the black vampires fell away. Africa was far behind us, and I felt sure they had no aircraft to carry them off the continent. Something hurried me faster till the strangeness of it checked me, and the thought of Casey left in the plane behind me, lying sick of something stranger. I turned back toward the plane, relieved to see the familiar beauty of it, a leanly tapered silver shard that shone against the purple night.

That eerie euphony followed me, rising with an urgency that drew me to a halt halfway to the plane. I stood rapt, utterly perplexed, searching to understand. Except in holos I had never heard a hurricane, never heard ocean surf, never heard thunder boom, but that great harmony held me with the power I had always imagined in such natural forces.

Turning back to the forest, I searched for the source of that awed emotion. The huge tree trunks were lost in darkness now, but the high treetops still glowed dully red against a redder sunset. I saw no movement anywhere, but something eased my concern for Casey. It erased the pain of my awareness that we were here to live our lives and die, never to see the station and our friends again. It filled me, somehow, with new hope for the mission and the clone generations to come.

I stood there in the thickening dark, listening in vain for any familiar chord or cadence in the rise and fall of that mighty tide of sound, yet transfixed with a joy I couldn't understand. I forgot our quarrels with Arne, forgot the vampires in Africa, forgot myself and even my care for the future of Earth. I felt lifted into pure elation, beyond the need for thought or action.

Time ceased until that music, if I can call it music, peaked and died slowly into silence. It left me with an ache of longing for it to go on. The darkness turned to loneliness, and worry for Casey hit me again.

I plodded heavily on to the plane. Glancing back when I reached the ladder, I saw something lifting out of the forest.

A balloon!

A flash of gold when it rose into the sunlight, it was a real balloon, a gondola swinging under it. Though I felt no wind, it drifted slowly toward me. I stood craning until it passed high above me and vanished at last in the falling night. It meant another breed of alien beings here, I thought, intelligent beings with an advanced technology. Yet I felt no alarm. Still intoxicated with that music, I was eager to know them.

Wings, bright gold sails from her shoulders to her elbows.

BACK ON THE PLANE, I FOUND CASEY SITTING UP AND LOOKING better. He let me heat a bowl of soup and open a packet of the squash-and-tofu wafers the robots made, stuff Arne called "mamma de the Moon." While he ate, I tried to tell him about that music and how it had changed my mood.

"I heard it, or something like it," he said, "in a crazy dream." He stopped with his spoon in the air to shake his head in wonder. "It made me feel—I can't say how—made me feel the mission has a chance in spite of those things in Africa. A dream that kept getting crazier."

He paused again to eye me as if I might be wondering if he was crazy.

"I thought I saw a golden balloon rising out of the forest. Mona was in it. She had come down from the Moon to look for me. She was pregnant, I guess you didn't know, when we got on the escape plane. Six months along, though she hardly showed it. With a boy we were going to name Leonardo. She miscarried after we got to the station. In the dream, I thought little Leo might have another chance."

"I remember—" Eyes half closed, he fell silent, remembering.

Or seeming to. Growing up, we had all known our clone parents through their holes in the tank and all the letters and diaries and journals and relics they had left for us. Waiting for me in my own lockers, I had found my father's pipe and the brittle leather pouch that had held his tobacco, his pocket knife, his wallet with my mother's faded photo.

His life and his world had become more vivid and exciting to me than our tiny den on the crater rim, the stories of our clone parents as real as actual memories. And we shared the same flesh. My father spoke of racial memories, handed down through the unconscious to shape myth and habit. I think there were moments we really did recall from more than hearsay, though Arne never agreed.

"And you know, Dunk—" Dark eyes wide, Casey was smiling. "I remember how I found her. It happened in a night spot in an old South American city called Medellin. I was there as a pilot and bodyguard, employed by a man named Hugo Carrasco, a dealer in outlawed narcotics. Mona—"

He paused and shook his head as if the dream had been a miracle. While Pepe and Arne and I had always loved Tanya and Dian, who were live and with us at the station, Casey worshiped his vision of Mona. Once long ago he had showed me the picture of her he had found in the wallet El Chino brought to the Moon. A tiny photo, brittle and faded through the ages, it was holy to him, so precious that he had Dian put it back in the cold vault.

"A stunner, Dunk!" His face lit. "Long hair the color of honey, hanging low behind her back. Eyes as blue as this Earth sky. A figure like those old statues of Venus. She was singing sad Spanish songs, and they hit me hard. I had our waiter take her a hundred dollar bill. Her first quick wink changed to a smile and she kept on looking. I knew right then that we belonged to each other, but my boss had his own ideas.

"He was a big hairy brute, nicknamed El Matador for his habit of killing whoever crossed him. Swimming in too many *piria coladas*, he wanted to dance with Mona. She tried to tell him that her job was just to sing. He dragged her out on the floor. She slipped away from him and ran to me.

"He came after her, yelling at me to hold her for him." Haggard eyes staring off into the past, he shook his head with a wicked grin. "No hard choice. He pulled his gun. I shot first. Hit him in the shoulder. He fell bawling on the floor. I had the keys to his limo and his

jet. We beat the local cops to the airport and sold the jet in Mexico. She had an American passport. I had connections to get one made. We got across at Juarez. We lay low till I finally found another job with Cal DeFort. At a fraction of what Carrasco used to pay, but Cal saved our lives."

I MADE US ANOTHER POT OF THE ROBOT'S BLACK TEA AND TRIED TO talk about that golden balloon. Did it mean we'd found another breed of aliens here? Would they welcome any colony we tried to plant? Hardly listening, he still had Mona on his mind.

"That dream, Dunk." He shook his head, with a wryly wistful shrug. "You know, it left me feeling that our little Leo could really have a chance. In some future generation, when Mona and I are cloned together."

He munched another squash-and-tofu wafer, finished his tea, and lay back in his seat. He was soon snoring softly. I felt *groggy* for sleep, but I lay a long time wondering about the singing trees and the soaring balloon. Wondering too about the tale of Mona and El Matador. Casey loved to talk about El Chino and the past he imagined. He told his stories well. I enjoyed them, even when they seemed to be sheer imagination. Whatever the truth of it all, his hope to know the lost little Leo in some future life had left me aching for him.

He started me awake, once in the night, with a cry of anguish.

"Mona! Mona, wait for me!"

Day had come when I woke. A yellow sunbeam from the window struck his seat. It was empty.

6.

CALLING HIS NAME AND GOT NO ANSWER. HE HAD LEFT THE cabin door open. I climbed down to the ground and found no trace of him. The morning sun, hot and high in the east, showed no life on the great plain around us. The mossy turf held no footprints. No sound, not even a whisper of wind, came from the gold and crimson forest in the west. No golden balloon floated above it.

Wondering what to do, I climbed back aboard, rummaged in the food locker for a breakfast pack, but found that I had no appetite. Only desperate questions. Why was Casey gone? Was he in delirium from those poison thorns, or perhaps an alien virus on the vampire's fangs? Or maybe drawn into the singing forest by his fevered dreams of Mona? Without a clue, I had to look for answers.

First of all, I called the station to report on our landing and Casey's disappearance, trusting the robots to record it. I had no weapons. DeFort had brought no arsenal to the Moon, but my euphoria from the song of the trees was not entirely gone.

Carrying only the binoculars, I left the plane and walked toward the

forest. It looked very open, parklike and clean, the floor matted with the same leafless blue-green turf. The trees stood wide apart, with no fallen leaves or branches under them. They towered higher and still higher as I came near. Even the saplings along its edge reduced the plane to a toy. Those farther on looked topeless. The ground beneath was strangely clean. I found only one fallen leaf, a blanket-sized sheet of copper-tinted tissue stretched over a kite-like frame.

Listening for any sound from Casey, all I heard was silence, a stillness that somehow seemed alive and alert, watchful, waiting. Or so I felt. When I shouted once, my voice woke echoes from the towering trunks, sounds so faint and ghostly that I did not call again.

Walking farther on, I heard a muffled thud and found a fruit that had fallen near me. I picked it up. A bright pink bubble, pear-shaped and heavy in my hand, it flexed as if filled with liquid. Was it fit to eat, or perhaps as poisonous as those jungle barbs? I weighed it again, considering that. We were here for the rest of our lives. The food in the locker would soon be gone. We had to take our chances, and its odd aroma woke my appetite.

The small end of the bubble tapered into a sort of nipple. I squeezed it. Fragrant wine-red drops oozed out. I caught them in my palm and sniffed again. Saliva wet my mouth. I touched them with my tongue. The taste was slightly salty, slightly sweet, altogether good. I sucked at the nipple till the bubble was flat.

It satisfied my hunger, but left me with a question in botany. The fruits in our old world had been seeds covered with flesh evolved to tempt more mobile organisms to eat and scatter them. The bubble had shrunk to a flat bladder with no seed in it. What was its biological function?

THE FOREST LOOKED DARKER AND STRANGER WHEN I LOOKED ahead. The massive trunks, the color of time-darkened bronze, rose like the columns of an enormous temple. The branches spread so high I had to crane to make them out. The dense foliage shut out the sun to leave me in a heavy twilight. I had gone only a little way before something stopped me, a sense that I was invading a sacred place where I had no right to be.

Turning back, I searched north along the fringe of the forest, cautiously keeping daylight in view. I must have gone two or three miles before I heard it sing again. Its voice seemed to come from treetops, far ahead at first and far away, then near, louder, till it had become a trilling lilt high above me, a melody so lively and eager that I quickened my pace to a beat that began to keep time with my feet.

Was it aware of me?

For a moment I thought so, but it continued when I stood still. Was it addressed to Casey, not to me? Suddenly certain of that, with no rational reason, I stood wondering till it broke and paused. After a moment of total silence, I heard a piercing note like a cry of pain that changed into a long-drawn wail that seemed to come from all around me. The glow of color in the treetops darkened as if from a sudden shadow, but I saw no cloud to cast a shadow.

Overwhelmed by a wave of dread I knew no reason for, I retreated farther into the open and looked a little anxiously for the plane. It stood where I had left it, small and lonely in the distance, no more than a tiny, silvery exclamation point to that dying wail. I was raising the binoculars to make sure it was safe when I saw another balloon.

A bright golden ball, small and far away, it came drifting over of the forest toward the plane. A wave of darkness followed it, a shadow too large for it to cast. It was drifting too low. The gondola dragged the treetops, caught and broke free, caught and broke free again. That fading wail had sunk into a breathless hush, as if the forest itself felt anxious.

The glasses shaking in my hand, it took me a moment to get the balloon into a sharper focus. My breath stopped. It had snagged again on the splintered limb of a tree towering must have blasted. Wind dragged it free again, but its fabric must have torn. Deflating,

it sank fast. A door opened in the side of the gondola. Something jumped out.

I tried to steady the glasses, tried to get the focus sharper. The falling creature looked half human, half unearthly. Her skin was hairless, smooth, almost the golden hue of the balloon. She had three-toed, dark-clawed chicken feet, made for perching, but her thighs curved nicely to a golden tuff of pubic hair. Her full golden breasts were nipples like the fruit I had sucked.

For an instant I caught her face. Smoothly oval, softly feminine, it was framed in flowing pale-gold hair. Her eyes were darker, golden green, wide with terror. Her mouth gaped as if with a scream that was too far off for me to hear.

Tumbling down, she spread her wings, bright gold sails attached from her shoulders to her elbows. One seemed crooked, useless. She had opened them too late. Falling fast, she flapped them wildly, came down hard, staggered, stumbled, sank into a golden huddle, lay there not moving. On the impulse to help if she needed help, I started toward her and stopped when Casey came running out of the woods behind her.

He knelt beside her, felt her narrow wrist, bent his head against her breast to listen for her heart. I saw his lips moving as he spoke, saw stark fear fade into relief when her eyes blinked and stared at

We were creators,

him and finally smiled. He leaned a long time over her, bending to listen when her lips moved, kneeling to examine that injured wing.

I saw her flinch and sink back when she tried to move it. He gathered her up to lift her. Her feathered arms went around his neck, the gold wings wrapping them both. I thought he was taking her aboard the plane. Instead, he carried her back into the forest. The treetops shone bright again, that shadow lifted. Something like a single voice pealed from them, grew and spread into a great chorus of rejoicing. I imagined, that she was safe.

WONDER AND COMPASSION URGED ME TO FOLLOW, BUT I THOUGHT HE wouldn't want me. He must have thought I was aboard the plane if he thought about me at all. Why hadn't he tried to reach me? Had the forest somehow possessed him, the way the black vampires possessed their hosts? Such riddles haunted me, with no answers ready.

The voice of the forest softened as he carried her into the shadows. A gentle melody that fitted no melodic pattern that Dr. Lizard had taught when she gave us music lessons at her holo plane, it became as quietly soothing as the wind sounds and brook sounds and surf sounds Tanya's mother used to play when we were young and she wanted us to sleep.

It quieted my anxieties enough to let me stop and inspect the deflated balloon, a great ragged sheet of something that looked a little like plastic film but was still altogether baffling. It had no metal in it, no rivets or grommets or cylinders of gas. I found no cords or ropes or any valves that they might have controlled. It was all a single piece. I found no seams or stitches, no mark of manufacture. And the gondola—

I had to stand and scratch my head and stare again into the forest, which was purring softly now, like ten thousand of Dian's cats. The gondola was a slick orange-red shell, hard as a pecan shell. It had split wide open to let that winged creature escape. I wondered how there had been space for her till I saw that it was lined with some soft, pliant gray stuff shaped to fit the curves of her body. Leaning to look inside, I caught a hint of the winelike odor of the fruit I had found.

What was she?

Another fruit of the forest, grown on some singing tree? That was hard to imagine, but what else? Neither the trees nor the black vam-

pires could have evolved here on Earth. My father had taught us words invented for such other-worlders. Panspermia. Extraterrestrial. Xenobiology. The words were all I knew.

HOPFUL FOR CASEY'S RETURN, I STAYED IN OR NEAR THE PLANE. Hunger and thirst, I thought, should bring him back, but he never did appear. Again and again I ventured out to the forest fringe to look for any sign of him, but I never went far. What kept me out was something greater than my concern for Casey, awe more than actual fear, a dread of some felt presence that I didn't know or understand. A presence aware of me, perhaps warily alert, perhaps merely curious, maybe unconcerned with me at all. The sense of that was not hostile or alarming, yet strong enough to stop me.

I found another great copper-colored leaf, fallen from that shattered tree at the forest's edge. I dragged it out into the open, brought a holocam, and measured and described it for another report to the station. The long central vein was a hollow tube with something like a reed at the end. It squeaked faintly when I squeezed it. Were the leaves the voice boxes of the forest?

On another day I went back to study the balloon again. I found the empty shell of the gondola melting into the ground. The golden fabric had faded almost white, and a flap of it was stuck fast when I tried

A dozen yards out of the woods, the beast stood up on its huge rear legs, trumpeted like the elephants I had seen in a holo, and lumbered faster. I grabbed the binoculars and got them in focus to see the creature more clearly. Even as a biped, it looked more like a great ape than anything human, but really not much like anything ever evolved on Earth.

Two huge yellow eyes gazed out of a slick hairless head ridged with a red, saw-toothed crest. Its hands were wicked claws. The three-toed feet were armed with longer claws and bright red spurs. A sharp black penis thrust out below its yellow-furred belly. It came on at a lurching run, as if more used to ambling on all fours.

Casey was still well ahead till he stumbled on the being's dragging wing. They sprawled together on the turf. She lay motionless under the twisted wings. He came up on hands and knees, stared up at the beast, struggled to his feet, and stumbled to meet it. In his left hand he had a weapon, something that looked like one of the gray socks we wore in our boots, rocks packed in the toe.

The beast stopped once and turned back to bellow its rage into the forest. The forest echoed it with a great booming crescendo of discordant wrath. The beast swung back, howling like a hunting wolf. Casey raised his right hand, open palm out, in an appeal for peace.

The creature growled and came on to swipe its claws across his

cloned to re-create the Earth.

to pull it free. Dragging it loose, I found tiny yellow roots grown into it from the turf. One mystery solved. The forest needed no rangers or loggers to give it the look of a well-tended park. The mossy turf was doing that work, absorbing whatever fell.

Next morning I sat aboard the plane, trying to sum up our data and conclusions for transmission. I now had no doubt that Arne's terror of alien invasion was based on fact. Although we had seen no evidence of spacecraft in Africa, or any high technology at all, the black vampires were certainly not native to Earth. The singing trees? They remained an even greater riddle.

Waiting for the Moon to rise into radio range, I couldn't help feeling that the microphone was a black hole where my words would be lost forever. Although I hoped the robots would be listening, I had no way to know. I confess a certain perverse satisfaction in the thought of Arne shaking in terror that the vampires might find him.

The cabin door was open. I heard a sudden clamor, a sound like a thousand voices screaming, with no music in it. It rose and fell and became a rapid cannon fire that to my ears had no harmony at all. Watching from the door, I saw the whole forest flickering as if from multicolored lighting.

In a moment Casey and the winged thing burst into view. They ran frantically. She was limping. He held her hand to help her, her wings wrapped around him. Out of the trees, she spread them and tried to fly. One wing buckled. She sprawled to the turf. He picked her up, her arms around his neck, and plunged on toward the plane. The forest boomed in time with his footfalls, and scarlet lighting blazed behind them.

Something followed out of the forest.

7.

AN UNGAINLY, BROWN-FURRED BEAST LOUMPING CLUMSILY ON LONG HIND legs and shorter forelegs in a way that made it grotesquely tall behind and short ahead, it was already halfway to the plane. I first thought Casey had time enough to win his race, but he staggered weakly. The golden being seemed too heavy for him.

chest, ripping off most of his tattered shirt. He shifted the sock to his right hand, swung it high, and brought it down toward the thing's yellow-shelled head. It ducked and grappled him with both black-clawed hands. The sock swung again and struck beside the crimson crest.

The thing stopped as if dazed, the yellow eyes blinking at him. Casey stepped back to get his breath, bright blood running down his chest. It swayed and fell toward him. I thought he had knocked it out, but it grappled him again, snatched him off his feet, whirled his body, and tossed him sprawling.

The sock went flying and bounced off a golden wing. Casey lay motionless till I saw his fingers groping at the turf. The creature stalked to him, kicked a scarlet spur into his side, stamped its three-clawed foot on his blood-stained chest, and turned with arms spread high to trumpet a raucous call of triumph into the forest. The forest answered with a thundering psalm of victory.

It spurred his limp body again, leaned to gather the female with its crimson claws, and carried her back toward the forest, the injured wing dragging. The forest welcomed his return with a rumbling chant that kept time to his footfalls.

CASEY TRIED TO SET UP BEFORE I REACHED HIM, AND SANK WEARILY back. A pitiful scarecrow, he was hollow-eyed and half-naked, dried blood clotted black on the welted marks of the vampire's fangs, fresh blood where the claws had slashed him.

"Damn, damn, damn!" He gave me a forlorn little grin. His voice turned anxious. "Did you see Mona?"

"I saw—saw something."

"Wasn't she beautiful?"

"Something strange," I said. "Out of a new biology."

"She is—different." He was panting for breath. "Wonderful! And strange enough till I found Mona in her."

He shook his head at my look of disbelief and tried again to rise. I helped him stand. He staggered after the creature swaggering away with the female, stumbled and nearly fell, stopped with a helpless shrug. He stood looking after them, getting back his breath, while the creature's razor crest shrank to a bright red point in the distance, bobbing along above Mona's golden wings. They

I catch a fleeting sense of beings and wiser and stranger than

vanished at last in the shadows. Casey turned back to me, still swaying on his feet, something wild in his deep-sunk eyes.

"I guess you think I'm sick or crazy." He shook his head, with a faint little grin. "I know she's a different breed. Hard to understand. But she does have Mona in her. If you had seen her eyes—she has Mona's eyes." He was whispering hoarsely, an awed devotion on his haggard face. "Mona's voice when she sings. I love her, Dunk." His face set with stubborn purpose. "I've got to get her back."

"How? How can you hope—"

He wasn't listening.

"That—that hideous thing!" His voice went thick with baffled fury. "A devil from—from I don't know where. I believe it came down in that first balloon we saw. Hunting her. We've been hiding. Running from it." He stopped to calm his quivering voice. "I can't let it take her."

His scarred fists were knotted, but he was barely able to stand. He limped with me back to the plane and let me clean his wounds and spray them with healanet. He must have been sick from some poison or virus, but half his weakness came from hunger.

"She found fruit for us," he said. "Something like big red grapes, full of juice we could suck. I liked the taste. It gave me a sort of high, but it wasn't meant for humans. There's no strength in it."

He devoured two meal packs and a banana the robots had grown in our hothouse, and poured himself a stiff shot of the moonshine El Chino had taught him to distill. He said it eased his pain. Groggy with exhaustion, he was still too jittery to sleep. He wanted to talk about Mona. Or Monas. The human refugee who boarded the escape plane with El Chino and the gold-winged alien had somehow run together in his mind.

"She sang to me, Dunk. Not with words, her language has no words. Not even with any tune I ever heard. But she made me sense what she felt for me. We were speaking with something better than words." He paused to shrug at the questions on my face. "I don't know how. It doesn't matter. Listening, I saw what she saw. Heard what she heard. I understood the trees when they sang to her."

I got up to brew a pot of tea.

"Dunk!" His voice rose impatiently. "If you think I'm out of my head, it's because you never heard her sing. But damn those trees!" He made a bitter face. "They don't like me. Maybe because I'm not a tree. They say I don't belong. They're afraid I'll take her away. But she loves me, Dunk. She loves me."

His voice had fallen into silence, and he sat staring away at nothing till I touched his arm to offer the mug of hot tea. He jumped as if that startled him.

"Sorry, Dunk. I forget where I am." He gave me an apologetic grin and sloshed a shot of his moonshine into the tea. "She gave me dreams." Sipping at the tea, he let his voice fade absently. "Memories, really, at night when I slept with her arms around me."

He stopped to squint at my shock and doubt.

"It's real, Dunk." His voice fell soberly. "Nothing I can even try to explain or understand, but it's real as anything. Don't you remember how it was when we were kids back at the station? How our holo parents used to talk about their lives before the impact? I listened to my clone Dad's holo and read the papers he'd left for me. I used to dream about him and all he had been, till I knew in my heart that El Chino was alive again in me."

I had to nod. Growing up so close together, and so close to our

holo parents, we knew each other very well. Tanya had known I loved her before I ever dared say so, and I'd felt sick because I already knew what she had decided to say. Dian used to call it telepathy. I doubted the reality of that because I knew no way to explain it. Casey had been another skeptic, until now.

"Mona—" He tipped his head and looked away as if he heard her speaking. "The Mona in those dreams was the same Mona that talked to me out of the holo tank. The same Mona that got on the escape plane with me, just ahead of the mobs. The Mona I've always hoped to meet again when we are cloned together. In the dreams I remembered things that happened back on Earth when we really were together. Remembered more than she and El Chino ever told me."

"Things like that fight—" He paused to nod as the recollections came. "The gunfight in that Medellín nightclub when El Matador was coming on to Mona. And then another gun battle with the men guarding his jet. One of them took his last bullet. Another murder rap on my record if they'd caught me, but we got off a minute or so ahead of the cops. We flew north in the dark out over the Pacific, around the fringe of a hurricane. The fuel tanks were empty when we glided down to a private strip near La Paz."

He reached for his map.

"That was a city in Baja California, here near the tip of the peninsula. A center of the drug trade. I had an old friend there, El Yankee Rosa. Man I met in a Colombian jail. I swapped him the jet for the help we needed. He got our passports fixed and offered me a good spot in his own group."

"El Matador was offering to pay big money for our tattoos. Proof we'd been knocked off. Yankee could have sold us out, but he knows him for the diamondback he is. He wanted to sign me on for his own war with El Matador's gang. He promised to help Mona get back to the States."

"She wouldn't go." He turned to gaze through the window at the forest, a dark wall of shadow beneath the stain of a blood-colored sunset. "Because she loved me." He whispered that, turning slowly back to me. "Dunk, one night together on that flight, and she already loved me. Live or die, all I wanted was to keep her with me. Yankee called us *dos locos* because we wouldn't split up, but he found us a car and told us *vaya bien*."

"Fifty kilometers up the peninsula we hit a road block. Had to leave the car and run for it. Blazing summer heat in a killer cactus desert. The cops gave up the chase, but the next three days were no fun for us. Mona passed out once, nearly dead for water. The hurricane rain saved her. Up the coast, we stole a fishing boat and headed out into ugly weather."

"The gulf was wider then, all the oceans higher, but we made it across. Beached the boat and limped into Los Mochis. A tourist spot Mona had worked as a travel guide. Her wits and know-how got us into a tour group. We rode a train across Copper Canyon to Chihuahua." He pointed at his map. "A city that stood about where we are right now. We got a flight from there to El Paso and lay low till we heard El Yankee had knocked El Matador off. Finally, by great good luck, we were at Cal DeFort's Moon base when the bolide hit."

He tipped more moonshine into his mug, drained it straight, and turned to stare again into the silent forest and the fading sunset.

"Memories." He murmured the word and turned back to me.

older I can ever know.

"Memories from a million years ago, but real as yesterday," His gaze grew piercing. "You don't believe me, Dunk? You think all that was just another crazy dream?"

"I don't know." I looked out into the thickening dark and back at him. "I've heard the forest singing. I saw the balloon that brought that—brought your Mona, if you want to call her that. I watched that creature knock you out and take her away. They're nothing natural to this Earth. I've got no way to understand them or what they can do."

"No matter." He paused to sit up straighter. "They're here. Great stuff for your next report to the robots, if you think the robots want to hear you. As for Mona—" He clenched his fists. "I won't give her up. Not to that beast, or those crazy woods. I'm going back after her. But not tonight—"

He yawned and stretched and sank into sleep.

HIS SEAT WAS EMPTY AGAIN WHEN I WOKE. I CLIMBED DOWN TO the blue-green carpet. The air was still and cool, with a bracing scent a little like the wine Arne used to make from the grapes the robots grew. The forest was silent, a great wall of red and golden fire in the morning sunlight.

I found Casey lying on his back under the plane. He climbed out with a long metal bar he had cut out of the landing cradle. At work without a shirt, he looked gaunt. Drops of darkening blood had oozed through the sealant film over his scars. Yet he was energetically busy, using his torch to trim one end of the bar to a jagged point and taping the other for a grip. Trying the balance of it, he turned to grin bleakly at the forest.

"Viva!" he muttered. "Viva la Mona!"

The forest darkened. I heard a faint, far-off sigh like wind in the treetops, though I felt no wind, then a deep-pitched rumble like distant thunder, altogether tuneless and coldly forbidding. I retreated to the ladder and Casey shook his lance.

"Any fuel left in the tanks?" I asked him. "Could you move us to a safer place?"

"Run from that hairy devil?"

His dark jaw sagged in astonishment, and stiffened instantly. He shrugged my reaching hand away, stood a moment looking into the silent forest, and shouldered his lance. His face worked, and his sober voice was almost apologetic when he spoke.

"You don't—you don't understand." His voice trembled and he made a quick wipe at his eyes. "I'm sorry for you, Dunk."

Before I could find anything to say, he lifted his free hand in a sort of salute and walked off toward the trees. Ahead of him, their alien voice rose in a solemn song that had no melody or harmony until a muffled drumbeat came into it, keeping time to his feet.

8.

HE NEVER CAME BACK. I BELIEVE I AM THE ONLY MAN ON Earth. Perhaps the only man alive anywhere. Or perhaps Arne Linder still reigns as the alpha male on the Moon, lordling it over his three companions. I'll never know, but I intend to keep on transmitting these reports so long as I survive, trusting the robots to receive and record them for our heirs.

My own will to live endures, even here and now. I exist in a kind of comfort. The seasons are so mild, without frost or drought, that I wonder if the trees don't influence the weather. My home is the disabled spaceplane. When the supplies ran short, I often thought of DeFoe's marooned hero in the old paper book my holo father used to read aloud when we complained of loneliness.

I've learned to grow my own food. Needing tools to till the soil, I cut metal from the landing cradle to make spades and hoes. My first garden had to be abandoned because the nearer trees flashed red and cried out as if in pain when my spade bit into the velvet soil, but I found uncovered ground a mile or so south, where a cold spring flows out across the floor of a shallow valley.

We had brought seed from the station: corn, beans, peanuts, squash, tomatoes, even peppers and the okra for the gumbo my holo father learned to love when he was a child in the old city of New Orleans. When my diet seems monotonous, I sometimes venture into the fringe of the woods to look for those red, juice-filled fruits. Although the forest floor is always clean, two or three often fall near where I am searching, as if dropped as a gift for me.

Although their bittersweet tang seemed sharp and strange at first, I have come to enjoy them more and more. Perhaps they contain some protein or vitamin lacking from my diet. They leave me with a renewed sense of vigor and well-being, though they never satisfy hunger, and the brief euphoria they bring is never enough to erase my longing for the station and the friends I left on the Moon.

I miss Pepe, always asking for another chess game and taking forever to decide his moves. I miss Dian, always eager to recite some trivial bit of ancient Earth history that nobody cared to hear. I even miss Arne, who had a power of mind I admired when he was in his better moods. And Tanya—I long for her most of all.

I keep a picture of her over my bed in the plane, a little pencil drawing she let me make on the day we turned 16. Though I'm no artist, I thought it caught the sly quirk of her lips and the bright mischief in her smile. It can wake a haunting recollection of the kiss she gave me the day I dared to say I loved her, the taste of her lips, the scent and softness of her dark hair, the warmth of her body in my arms.

But that fond recollection is hard to hold. Pepe was the one she loved. When I look up at the drawing, trying to bring that bright moment back, her image is likely to fade into Mona's as I used to see her in the holo tank, golden-haired, taller than Tanya, more alluringly shaped.

Although I never knew her except as that luminous ghost in the tank, smiling at El Chino and blind to us, I often dream of them. The gunfight in Medellín, the night flight to Mexico in the stolen jet, the desperate trek through the cactus desert, the battle to get on the escape plane before the impact: The drama of their lives is as vivid to me as if I had shared it with them.

GROWN MORE TOLERANT NOW, THE TREES NO LONGER GROWL OR thunder at me. They seem to sense my moods. One night when I lay sunk in bitter despair, contemplating suicide, they sang to call me out of the plane and greet me with a symphony of light and sound that captured and contained me in a way I have never understood. It left me content with my exile, at least for the moment, and happy to have them near.

At dusk on another evening a year or so later, they invited me away from the plane. Though I felt no wind, they sighed and whispered as if to one another. The gold and crimson splendor of the sunset flowed down into the treetops as darkness thickened, and their rising chorus spoke to me in a way I had never heard before.

Yielding to them without purpose or intention, I climbed down the ladder and started toward them. Their pealing voices rose. As if to hurry me on, a rosy light swept the shadows out of a majestic avenue

I have died and died again, my bones in

through the towering trunks ahead. I followed it into an opening where a single young sapling stood. Its bronze bole, arrow-straight, was no thicker than my arm, but the glowing foliage rose to twice my height, pulsing with waves of vivid color that kept the rapid rhythm of my heart.

The gleam of metal caught my eye. Casey's lance lay beside the trunk, between two white skulls. Two skeletons, when I looked more closely, had sunk half into the leafless turf. I saw objects it had not absorbed: Casey's boots, his pocket knife, the gold watch his close father had brought to the Moon. The bones of his right arm extended to the lance; remnants of the finger bones were still curled around the taped handle.

The other skeleton looked weirdly semihuman, but larger and heavier than his. Half gone, it still had the alien's three-toed chicken feet, the cruel black claws, the blood-red spurs. The skull was longer than Casey's, flatter, heavy-jawed, a sharp ridge across the crown. The lance had gone into the right eye socket; the jagged point jutted through a crack at the back of the skull.

I stood a long time there under the shimmering leaves, trying to imagine how they died. Casey must have been mauled, but when I knelt to search his bones for damage, they were half melted away and stuck fast in the turf. I found none broken, no clue to the actual manner of his death.

The voice of the little tree had fallen into a solemn monody that died slowly into silence. Its glowing leaves dimmed, their light gathering around its roots. Getting off my knees, I found another, smaller skull among the brittle fragments of a slither skeleton. The bones of Casey's gold-winged Mona. Thin scraps of the wings, not yet eaten by the turf, lay beside her arm bones. They were stretched toward Casey's skeleton.

The little tree had grown up through the slender relics of her rib cage. I stood there in the dark, groping to understand their story, till the voices of the forest rose again in a dirge that reflected my dazed bewilderment. The shudder of the treetop dimmed and flickered out. The only light left to me was the glow along the avenue that had brought me there. I followed it back toward the ship.

THAT NIGHT THE FOREST SANG TO ME WITH A VOICE I KNEW, THE human voice of Mona's image in the holo tank, and I dreamed of the little tree. In the dream, I pulled my boots on and climbed down out of the plane. The night lay clear and bright under a full Moon that washed the immensity of the plain and the long forest wall with a mystic splendor I had never felt before. I stood spell-bound until a great chorus rose to call me into the darkness under the trees. They glowed ahead to light a road for me.

I followed it again in the dream, back to that small tree in the clearing. The skeletons were gone. Mona stood with Casey where his bones had been. Not the gold-winged being who had come down in the balloon, but now the tall, blonde, and lovely Mona whose holo ghost I had known. She looked lovely in a long crimson gown, with a red rose in her hair. A breathless hush filled the forest when she saw me, and she ran to throw her human arms around me.

I felt the warmth of her arms and caught the sweetness of the rose, the fragrance of those the robots had grown for Tanya in the hothouse at the station. Her lips were warm and moist when she

kissed me, her hand warm and strong when she caught my own to lead me on to Casey and the tree.

Casey was El Chino now. He was thick and black and naked to the waist as he had been when he brought her aboard the escape plane at the White Sands Moon Base. He wore the same faded jeans, the same heavy work boots, the same jaunty crimson turban. The golden shimmer of the tree caught the tattooed flags of Mexico and China on his wide, black chest. The red-ridged scars from the poison thorns and the vampire's fangs were gone.

"Hi, Dunk!" Grinning warmly, he strode to catch my hand in a grip that left my fingers aching. He stood a moment appraising me, a smile of affection in his Chinese eyes. "For a Crusoe with no Friday, you're looking good." He caught Mona's hand and turned to look at the little tree. "Meet our son, Leonardo."

"Our little Leo." With a smile of tender adoration, Mona lifted her face to the tree. "Our child that never lived. We have him with us now."

Casey waved me closer.

"Our good friend Dunk," he told the tree. "Duncan Yare. He came down with me from the Moon. He may seem strange to you, but he's OK. Marooned here alone, he'll need a new companion."

I heard a whisper through the leaves above me, as if from wind I didn't feel. Light pulsed through it, brightening to match the rose in Mona's hair. The whisper became a singing voice, almost too soft for me to hear. I heard tones like Mona's, then like Casey's, but neither words I understood nor anything like the music I had learned to love when Dian played her holo records.

Sometimes it had a fleeting rhythm that matched my heartbeat, sometimes my breathing. The sheer strangeness of it held me till it was no longer strange at all. I began to feel comfort in it, and something more, perhaps even love. My father told me once that his mother used to speak and sing to him before he was born. Our own education begins in the maternity lab. We don't remember, but I'm sure it helps to make us what we are. In some way, I think, the tree was reaching me.

I don't know how long I stood there, awed and wondering. The forest picked up the small tree's song, faintly at first but finally with a rolling crescendo so great that it seemed to vibrate through me before it reached its peak and died away. The glowing treetops faded. The small tree was left silent and dark. When I looked around for Casey and Mona, they were gone.

And that was the end of the dream.

A SHRILL SCREECH SHOCKED ME AWAKE. I WAS IN MY BED ON THE plane, the old metal creaking from expansion as the morning sun warmed it. Bright sunlight glittered on the instrument panels. Beyond the window, a single bright golden balloon drifted low above the long forest wall. A pool of brightness crept across the treetops beneath it, following like the shadow of a cloud, but the wonder of the dream was gone.

I sat there on the side of the bed, dazed with the pain of loss. Casey alive again, the human Mona here on Earth, the shining tree they called a son: all illusion. Cold reality hit me with my recollection of the three turf-eaten skeletons, Casey's lance thrust through the alien skull, the brittle rib fragments around the root of the little tree. The forest lay silent and dark. The joy of the dream had vanished into utter loneliness. The bleak fact came

leaving unmarked and forgotten places.

back. I was here alone forever, the only man on the planet, maybe anywhere.

Yet the drive for life endures. With no appetite for breakfast, I plodded down for a cold plunge into the pool beneath my spring. A little revived by that, I spaded ground for another row of corn. I stopped for breath when that tired me, and searched the sky again for that balloon. It was gone. Had it brought another gold-winged fairy like Casey's Mona? Another alien creature like the thing that killed him? I never knew.



TIME FLOWS ON. I WATCH THE FOREST NOW AND LISTEN to it, longing for the sense of comfort and companionship I enjoyed in the dream. It never speaks to me, not in any human tongue, yet I now feel sure that it does hold something more than toleration for me. Sometimes when I thought I heard another invitation in its song, I have ventured into it to search again for that small tree.

On the first occasions, I never got far. The towering trunks seemed too vast, the roof too high, the shadows too dark, its whole alien presence overwhelming. Dread of being lost, as Casey was lost in that African jungle, turned me back toward daylight. As time went on, however, that dread has dimmed.

Older now, changing slowly, I have begun to know and trust the forest. And I have learned how to live here. Now I know when and what to plant, how to save and ration what I harvest. I have learned to repair worn boots and clothing, learned to make do and improvise. Although I will always wonder whether Arne and Tanya and Dian are still alive on the Moon, that no longer matters greatly. We shall all be cloned again.

On hot summer afternoons when I feel exhausted from work in my little field, I have fallen into the habit of walking into the shade of the nearer trees to escape the high sun's blaze on the open plain. I have come to like the stillness when the trees are silent and their voices when they sing. Sometimes I sleep and dream of the little tree called Leo. It speaks to me with dancing colors and wordless songs that have made it seem a friend. Feeling that it wanted to know me, I have told it the story of the great impact and the aftermath, the story of the station and our mission to restore the planet. I feel somehow that it understands and even seems to welcome the promise of our return to Earth.

It has guided me back to the clearing where it stands. I find it grown taller now, its straight bole sturdier, its broader leaves more vividly splashed with crimson and gold. The skeletons are gone. The ground where they lay is clean now, since I carried Casey's lance and those other unseaten relics back to the plane.

I visit it often. Sometimes it sings very softly, just to me. Sometimes it is silent. Always it brings me a sense of quiet companionship. Near it, I no longer feel alone. Never using words, it has helped me begin to understand the exotic botany of the forest.

In their alien biology, I believe the trees bear those golden balloons as a means of dispersing their seed. The gold-winged being Casey loved was somewhat like a flower, more like a hatching egg. He was the first moving thing she saw after she emerged from the shell where she had grown. She bonded to him, as she would have bonded to the alien mate searching for her.

His own infatuation with her is harder to explain. I have come to believe that the trees are able to communicate with some means beyond their eerie music and the changing light and color of their leaves. Dian might call it telepathy, though I know no actual proof of that. Casey was still a sick man, sometimes hallucinating. Yet I think it was something in the forest itself that made him see her as El Chino's Mona.

Whatever the cause, it was a desperate and impossible love, its ending told by what I found beneath the tree. In terms of what my father might have called exobiology, the male being must have carried something like pollen to fertilize the flower. The Leo tree must have sprung from something like a seed formed in her body by their union.

SO I SPECULATE, AND I HAVE TIME FOR SPECULATION. THE FOREST holds more mystery than I can ever hope to probe. Our parents on the Moon never made us pray, but they spoke often of the old world religions and philosophies. The trees and even the black vampires are proof of life evolving beyond our solar system. The forest has become a temple to me, where I go not to worship or adore but to share an awed and solemn sense of kinship with life throughout the cosmos.

For life is universal. The old astronomers found its basic molecules in the great clouds of interstellar dust and gas, the stuff of life created before the stars were formed. Life creates and re-creates itself in an infinity of shapes. In my own wordless communion with the trees, I have come to sense a vast webwork of lives and minds existing all across the cosmos.

I catch a fleeting sense of beings often older and wiser and stranger than I can ever know, most of them good in the abstract sense that altruistic love is good, some of them evil, as I see the black vampires as evil in the sense that blind self-regard is evil. The evil entities are often at war with one another, the best of the good at war with death.

I have come to see the trees as engines of creation, created as we have been, not by any supernatural agency but by the processes of natural evolution with which life creates itself. Arne's dread of alien conquest was justified, I believe. There must be an evil power elsewhere in the cosmos that erased our reseeded life from Earth to make space for the black vampires. The singing trees must have been put here as instruments of good, sent to counter them.

Or so I feel.

Does this make us hapless puppets in an age-long war waged by vast and unknown powers far out across the galaxies? We have no way to know, but so long as we continue our mission of creation, what could be a better use for us? I expect to live out my own life here alone, and finally die here. Yet, sustained by the company of the trees, I no longer feel entirely alone, nor do I expect to die entirely alone. Creation is eternal. We ourselves, we clones at the station, are engines of life. Our mission must endure.

That is the message I have been transmitting toward the Moon. Our heirs in the next generation must be informed and warned. I recall the Vale of Kashmir, that lovely little Eden far from the vampire race in Africa and secure behind its majestic mountain walls. I trust that we will all be cloned again, Mona and Casey with us, to land there and plant mankind on Earth again. □

With her mastery of science, Rachel Stafford
could save the world. But could she save her daughter
from the tenacious grip of the Blessed Order?

PHALLICIDE

THE HUMAN BRAIN IS A THREE-POUND MASS of blood and nerves and jelly; anything less like a muscle is hard to imagine. Yet there are resemblances. If I work my brain long and hard, then give it a rest, I find that the break pays off. Puzzles resolve themselves and old difficulties disappear. I return to work mentally rejuvenated and in top creative condition.

I gazed at the screen and decided that I must be long overdue for that rest. Those were my own research results, but I stared mystified at what sat before me on the display.

Was this my work? I recognized the data, but they didn't feel like mine. Instead of the expected intimacy, so close to the latest experiment that you live inside it, I felt like an outsider.

BY CHARLES SHEFFIELD Illustration by Barclay Shaw





BEFORE I WAS 11 YEARS OLD I HAD LEARNED TO HIDE MOST OF MY THOUGHTS AND ALL MY OPINIONS.

I scrolled toward the end. The response is decidedly nonlinear and follows an approximate two-thirds power law. When the oral dose is doubled, the average time of sustained erection increases from nine minutes to 14 minutes. When the dose is quadrupled, the average erection time becomes 22 minutes. Elevated nitric-oxide levels persist in the corpora cavernosa for 38 minutes after orgasm ...

It was my own work, without a doubt. More than that, they were my own words. I may not be the world's greatest stylist, but one thing I recognize, always and unmistakably, is what I have written. Change an adjective, add a comma, and I will know.

My own words, but surely not my recent words. I checked the file. It was dated Thursday. Yesterday. The experimental data had been entered three days earlier.

I was still staring at the screen when I heard footsteps in the corridor and a quiet knock at my closed door.

Although I was fairly sure that only one person would be visiting my office at eight in the morning, the key strokes to change to a second document area were pure reflex. By the time the door opened, the screen in front of me showed a bland table of daily blood pressure from an unidentified subject.

"Good morning, Doctor Rachel," said a cheerful voice behind me. "Let's take a look at you."

As expected, it was Sharon Prostley, administrative assistant to the head of the lab. I stood up and turned around, and she gave me my morning head-to-toe critical examination.

"Not bad. Not bad at all." She came forward and touched the clip in my hair. "My own choice would have been apple-green as a better match to your skirt. But emerald will do nicely, and it goes well with your eyes."

"Thanks, Sharon." Color-blindness in women is 10 times rarer than in men, but I suspect that it usually matters a lot more. I was relatively lucky. I had trouble only in distinguishing certain classes of blues and greens.

"Happy to do it," she said. "Not many things let me feel useful early in the morning." She moved away toward the door, but turned at the threshold. "I forgot to ask. How was the vacation?"

I stared at her, and she went on, "Did you get to spend time with your family?"

My autopilot took over. "Yes. Oh, yes, it was great, thanks. I had a wonderful time."

"Wish I could get away. I'm tied here till spring break." And Sharon was gone, back along the corridor toward her office.

As the sound of her footsteps receded, I switched my computer back to its hidden document area. The response is decidedly nonlinear. ... The familiar/unfamiliar words confronted me. Yesterday's date. Except that—I clicked to the day and date setting on my computer. Friday, as it should be. But instead of March 12 it was March 19.

I had lost a week. Vacation. Family. I felt a moment of dizzy memory and partial understanding, and I turned my computer off abruptly without waiting for the usual utilities disk-check. I had to get out of here—out of the room, out of the building, off the campus, alone into the fresh air where I could think.

By 8:15 the sun was rising and the overnight chill was already off the street. I walked west from the university campus along the flat, even thoroughfare of St. George, toward the distant brown hills that rose clear and stark in the dry air.

I wandered seven long blocks and finally sat down on a bench in front of a bicycle store. The vivid posters in the shop window showed grinning riders drifting effortlessly uphill. While I stared, the lost week filtered back into my head fragment by random fragment. I knew that I had been again to Bryceville, 95 miles to the northeast beyond the Zion National Park. I knew that I had seen Naomi and the rest of my family there. I knew I had been heavily drugged; and I knew why.

"It's for your own sake more than anyone else's," Elder Cyrus Walker's bald dome and twinkling gray eyes had been part of my life for a quarter of a century. With his barrel chest and strong sloping shoulders he was like a rugged tree, never seeming a day older as the years passed. "We still trust you completely. But suppose you are doing things that might give you away, and you don't even realize it?"

An interrogation was inevitable. It was standard on each return trip. The fact that drugs of my own design were used in the questioning added a special irony. "Can't I at least see my family first?" I pleaded. "Today is Naomi's 13th birthday. She sent me a class picture, and she's grown so much I hardly know her."

"Of course you can see her. There's absolutely no rush, you'll be with us at least five more days." Elder Walker patted my shoulder with a hand as thick and hard as a chopping board. "But we don't want you going back to the university, do we, acting and feeling groggy? We all have too much invested to jeopardize the effort now. And there's other work to do. Shall we say, the day after tomorrow for the tests of your latest work?"

"I suppose so."

"I don't care for that tone of voice." Elder Walker stood up and wandered over to the window. Beyond him I saw the bleached wooden walls and steep roof of the Patriarch's lodge, jutting high into the blue desert sky. He went on, "You know, Rachel, you are a very fortunate young woman."

"I realize that. And I'm truly grateful to have such a wonderful opportunity to serve the Blessed Order." Before I was 11 years old I had learned to hide most of my thoughts and all my opinions. Yet in a sense I agreed with Elder Cyrus Walker. I was lucky; lucky to have an unusual mind, one with a memory and logical powers that even the Council members could not ignore.

Had it been otherwise ...

The Escalante bus had dropped me off in late afternoon at the edge of town, and as I walked through slanting sunlight I saw Deborah Carmon and Mary Dixon waiting outside the school until classes were over and the older children were let out. Deb and Mary each had one babe in arms and three kids in tow. Young ones. The two women were 27, my exact contemporaries. They looked twice my age. Nine or 10 kids can wear down even the strongest.

Deb and Mary had stared back at me—with pity. Their nods said, Why, it's poor Rachel Stafford, not pretty enough to be taken as a third or even a fourth wife. My one child, Naomi, hardly counted. Her father was the Patriarch himself, and from their looks they thought that he had surely bedded me from duty rather than desire.

"And, of course, we must have adequate time for the tests. Can't afford to rush." Elder Walker still had his back to me, gazing out of the window at a tumbledown rolling ghostlike along the dusty street. "I assume that you have made further progress, and brought the results of your work with you?"

"I think so. But I won't really be sure until the tests are complete." "Naturally." Elder Walker turned and held out his hand. "Better, don't you think, to put them in my safekeeping?"

It was phrased as a question but I never doubted that it was an order. I handed over the vials. Cyrus Walker ran Bryceville. Oh, sure, the Patriarch was the ultimate authority, the Blessed Order's spiritual leader and final point of decision. But the Patriarch was 89 years old. No one spoke of his health or even suggested his mortality, but 13 years ago, when I had been led a nervous virgin to his bed, he had been stick-thin and wheezing and barely able to become aroused. Without the drugs and careful preparation given to me and the generous lubricants, entry would have been impossible.

Thank God, he had met the challenge. He had known me, briefly, and five minutes later he lay snoring. I remained wretched at his side for two full hours before I dared to leave the chamber and creep down the broad wooden staircase. What I remembered most was the scaly touch of his skin and his unpleasant smell, like moldy wet straw.

For a full month afterward I prayed that I was pregnant and would not have to go back to him. As my period failed to arrive, day after late day, relief and joy burgeoned within me like the child herself.

One month before Naomi was born, a chance event altered the course of my life. Confined to bed in the final trimester of a difficult pregnancy, nervous and uncomfortable and bored, I saw in a magazine the announcement of a national science essay contest. Although the deadline was only four days away, I scribbled 20 pages on the role of nitrous oxides in amphibian metabolism, and on amphibian reproductive cycles. The results arose from my own observations—and, let me admit it, my own experiments—on my pet frog, Jasper, and his descendants.

My entry went out in the next mail. I sent it without permission, a major sin. On the other hand, I was sure that I had no hope of winning one of the four cash prizes, or even of achieving an honorable mention. And, in fact, I received neither. What I did receive was a visit from Elder Walker. With him came a tall, dark-suited stranger with a maroon bow tie, piercing dark eyes, and a drooping black mustache.

Walter Cottingham was a lawyer from one of the big pharmaceutical companies. The home office of Tilden, Inc. was near Philadelphia, a city which at the time sounded to me as far away as the Moon. Walter Cottingham, to my 14-year-old perspective, was a senior authority figure. Only later did I learn that he was just 10 years older than me and fresh out of law school. The suit, bow tie, and mustache were his attempt to look older. But he was good at his job. For two hours, closely watched by Elder Walker, Walter Cottingham sat on my bed and asked me polite but shrewd questions related to my paper. What did I know about cyclic guanosine monophosphate? Had I ever heard of phosphodiesterase-5? How had I known that nitric oxide serves to relax blood vessels?

At the end of that time he stood up, turned to Elder Walker, and said, "I am authorized to offer one hundred thousand dollars, payable at once."

"It must be discussed with the Council."

"Naturally," Cottingham, to my vast surprise, winked at me. "There must also be one other condition."

"That she does no additional work which could possibly infringe on or affect your patents?"

"Good heavens, no," Walter Cottingham stared at Elder Walker, and I think that for the first time since his arrival he was genuinely astonished. "That would be the very last thing we at Tilden would suggest." He grinned down at me, and the smile changed him from a ferocious stranger to a friend. "When the baby is born, Miss Rachel, and you are recovered, you will receive a proper education. Naturally at our expense." He turned again to Elder Walker. "Miss Rachel should pursue research, preferably in the area where she is already active. However, Tilden will not constrain in any way the nature of her work, or the institution where she chooses to apply her talents. My company demands one thing only: Tilden will enjoy an exclusive right to any resulting patents. In return for this we will give you a royalty on gross product sales, plus other financial rewards."

I understood only a fraction of what Walter Cottingham was saying. Certainly, I had some idea that the direction of my life was changing, but I did not realize that I had at that moment diverged forever from the other fertile females in the Blessed Order. Unlike them, I would have no more than one child. Unlike them, I would become no man's wife—first, second, third, or fourth.

AFTER NAOMI WAS BORN I WAS ALLOWED TO REMAIN AND CARE FOR her for two more years. Depending on your definition, that was either an easy or a very hard period for me. I did no manual work, which for a female in the Blessed Order was unheard of. On the other hand, in every spare moment two tutors from Tilden crammed me with physics, chemistry, and biology. Mostly I loved it, but sometimes, struggling to absorb difficult material while Naomi suckled at my breast, I broke down in tears. At the time I had never heard of postpartum depression, and really I don't think that was my problem. It was that soon I would be in a far-off town, while my baby would remain in Bryceville.

I was just 17 when the time came for me to leave. By then Naomi was a sturdy two-year-old, more beautiful than I had ever been. She had my dark eyes, and my chin, but the nose and cheekbones were a mystery. Others said that they saw the Patriarch in her. I agreed—in public. In private, I rejected fiercely the suggestion that anything in that wrinkled face and those bleary eyes could live on in my child.

I left Bryceville, sure that I would miss Naomi every waking second. For the first week, I did. Then the heady thrill of access to a real lab with real equipment grabbed me. I moved my area of study from amphibians to mammals, and I mapped out an ambitious research program.

My area of study. My research program. Even, my laboratory—I thought of it that way, although a dozen other research workers were there.

What an innocent! At the time I saw nothing peculiar in the fact that a lab suitable for my specialized work lay less than a hundred miles from Bryceville. It never occurred to me that the long arm of Tilden, Inc. could reach out across the country and endow and equip a new university facility in the town of St. George in less time than it took me to wean Naomi. Most of all, I had no idea how closely the interests of Tilden coincided with those of certain members of the Blessed Order.

I had mapped out a research program? Yes, and no. Certainly I had written the proposal. But now I know that I was steered to it by a master plan of directed education, existing equipment, and available funding.

FIVE AND A HALF YEARS AFTER MY SCRIBBLED NOTES ON amphibian reproduction, I was offered—but did not understand—evidence that the direction of my "independent" research work had been carefully channeled from the beginning. It came during my usual six-monthly visit to Bryceville. Naomi was by this time a precocious handful, taxing the patience and stamina of my ailing mother. I wanted to be with both of them as much as I could, but half a day after my arrival I was called to a meeting with Elder Walker in his private quarters.

"Rachel, my dear." As I entered he stood up and enfolded me in a hug. Maybe I had become hypersensitive since leaving Bryceville, but that embrace felt more personal than paternal. Elder Walker's sexual energy was no secret in Bryceville. Rather than taking the seat offered on the couch next to him, I remained standing.

He looked at me sharply but said only, "I have been reading your research summaries." He picked up and waved a sheaf of papers. "I want to tell you a way in which you can be of extraordinary service to the Blessed Order. Before we begin, you must swear that what we will discuss today will be held absolutely secret."

"I promise." I was intrigued, as any 19-year-old is intrigued by secrets, and I could see no reason not to give my word.

"Secret," he added, "even from other members of the Blessed Order. Unless I give permission for you to do so, you must not speak of this to your mother or to anyone else in your family. And, of course, to no one outside."

That made me hesitate, but after a few moments I nodded. "I promise that I will speak to no one unless you tell me that I may."

"Very good." Elder Walker relaxed back onto the couch. "Rachel, you are a highly intelligent and talented young woman. But you have been here very little for the past five years. You have not seen the changes in the Patriarch."

Cyrus Walker was on very delicate ground. The Patriarch was eternal and unchanging, almost by definition. It was forbidden to speak of him except in terms of veneration and as a symbol of absolute authority. I said, truthfully, "I have not seen the Patriarch for more than five years."

The last time had been on the occasion of my impregnation with Naomi, as Elder Walker surely knew.

"Then take my word for it," he said, "there is cause for concern. I must be direct with you, and on a highly sensitive subject. The Blessed Jasper is not what he was. Mentally, he remains acute; but physically, he has trouble performing... certain traditional functions of our Order."

He glanced at me hopefully, eyebrows raised. Could he be saying what he seemed to be saying? I declined to take the risk, and stared at him in silence.

He sighed, and went on. "It is an element of the faith in the Blessed Order that our numbers in the world will increase and we will thrive. Our children are drawn from superior stock. They grow untainted by the habits of a degraded society. And, of course, the Patriarch is the best father that any child could ever have."

Now I was sure. I said flatly, "The Blessed Jasper has become impotent."

He grimaced. "My dear, never ever say such a thing outside this room, or hint at it to any other person. But what you say is correct."

"Into which category does his impotence fall?" My professional interest had been roused—the physiological interplay between the conscious mind and the autonomic nervous system was the very area of my own research—and for me, scientific curiosity always overcomes shyness and diffidence. Elder Walker stared at me and I went on, "Male erectile disorder falls into several categories. Primary impotence means that the male has never been able to maintain an erection long enough to perform sexual intercourse. Of course, we know that is not the case with the Blessed Jasper."

Elder Walker flinched and raised his hand, as though to ward off blasphemy, but after a moment he took a deep breath and nodded.

"There are many other drugs," I said. "I can suggest dozens. The problem is, they have never been tried on human subjects under controlled conditions. It would take years for Tilden to get any of them through the FDA."

Prompted by another blank look from Elder Walker, I added, "FDA is the Food and Drug Administration. It would have to approve any drug."

"Why should they know anything of the drugs that you have developed? They belong to us and Tilden."

"The FDA has to be told of any experiments involving humans. And Tilden won't risk crossing the FDA, they have too much at stake on hundreds of products."

"Then neither Tilden nor your FDA shall know of the experiments," Elder Walker had regained control of himself, and of the meeting. "It is very simple, Rachel. You will develop and provide the test drugs. Here within the Order I will find males to take part in your experiments. The results will come back to you, and you will make the evaluation. No one outside will know anything."

I shook my head. I was frightened, but I had to protest. "I can't do that."

"What do you mean, can't?" Elder Walker was scowling.

"It's dangerous, and unethical, and unfair to Tilden. They've always worked in good faith with the Blessed Order. Walter Cottingham has treated me kindly, and I regard him as my friend."

"Tilden, and Walter Cottingham, are unbelievers. Your duty is to serve the Blessed Order." Perhaps there was still a hint of rebellion in my look, because he went on, "You will do as you are told, Rachel. Or would you rather never see your daughter again?"

"YOU WILL DO AS YOU ARE TOLD. OR WOULD YOU RATHER NEVER SEE YOUR DAUGHTER AGAIN?"

"You are disconcertingly frank, my dear. I blame your exposure to subversive influences beyond the Order, and I excuse your conduct. Continue."

"Secondary impotence covers several different cases. Sometimes a male is intermittently potent. Sometimes a male is potent with certain partners, and not with others. Sometimes the male achieves an erection, but cannot sustain it long enough to complete the act; and sometimes a previously potent male, because of age or illness, loses all ability to achieve erection. Which one of these best describes the Blessed Jasper?"

I THOUGHT HE WAS NOT GOING TO ANSWER. HE STOOD UP AND WENT over to his desk. Half a minute later, without looking at me, he said, "The last one. But the Patriarch is not ill—at least, no worse than he has been for years. Can anything be done to help him?"

"I don't know."

"You must, it is your area of specialty. Surely there are medications, injections?" He turned to me and he was holding papers in his hand. "You mention them in your own reports. The scientists at Tilden have 32 pending patents based on your work." Stumbling over the words, he read, "Alprostadil, CGMP, guanine hexafluorate. Sildenafil—what's this?"

"Sildenafil citrate. That last one is already patented by Pfizer. It was the first of the Viagra-class drugs. But it would still be my first suggestion here."

"It was tried earlier this year. There was some success, but also side effects—headaches, and alarming fluctuations in blood pressure. I judged it too risky to continue."

My mind felt topsy-turvy. So many years with the image of the Patriarch as all-powerful and all-knowing, and now Cyrus Walker spoke of the Blessed Jasper like some prize animal needing to be restored to working condition.

He had hit my weak point, and he knew it. They had Naomi. I dared argue no more. I nodded, and said softly, "It will be as you say."

If I am completely honest, I must admit that the decision was not so difficult as it may sound. I was fascinated by the prospect of applying some of the ideas that bubbled up in my head as soon as the problem was defined. Also, my whole upbringing had been one in which obedience to Elder Cyrus Walker and the needs of the Blessed Order was immediate and unquestioned.

So the secret program was launched—secret from Tilden, secret from the university, secret from my friends and fellow workers in the lab. I was told, and accepted, that in the interests of secrecy I would be interrogated regularly during my visits to Bryocleve.

I was allowed to spend an extra four days with Naomi. Then I returned to the university and I began to work, harder than ever in my life. I cannot deny that I reveled in the challenge.

It would be two more years before I began to suspect that Cyrus Walker's motives were not what they seemed. And a year beyond that when I started to question the whole structure and *raison d'être* of the Blessed Order.

NOT FOR NOTHING DO THE PRIESTS OF ANOTHER RELIGION SAY, "GIVE me the child for the first seven years, and I'll give you the man."

Whatever an infant finds around herself is, by definition, the natural order of things. Quite reasonable to me, all through my first and second decades, was the idea that a man had the right to take several wives; accepted, that a woman's success would be measured by the number of healthy children that she bore, and that she would function in all the affairs of life as "the lesser man"; natural, that children were first and foremost the possessions and servants of the Blessed Order; unquestioned, that the sex rights and privileges of the males should contain a defined hierarchy, with the Patriarch at the head and Elder Walker as his powerful lieutenant.

In every class in Bryceville's school, biblical authority was cited for these matters. At home, my mother and seldom-seen father drove home the same message. Is it any wonder that five full years were necessary, away from Bryceville and in the company of heretics, before I began to feel differently?

And yet with hindsight I believe that I was in some ways always a rebel. Unknown to anyone, I had secretly named my first frog Jasper. Taking the name of the Patriarch in vain was blasphemy. Unknown to anyone, I had done my private froggy investigations and mailed the results to a science contest in the huge and unknown world beyond Bryceville and the Blessed Order. That was, at the very least, gross disobedience. It ought to have raised a red flare on the lofty roof of the Patriarch's lodge, glaring enough to warn any alert Council member that Rachel Stafford was the worst possible person to send into an outside world of skeptics and unbelievers.

Perhaps they were overconfident. After all, they had Naomi. And indeed, during my first years at the university any Council member would have seen little reason to doubt the decision to send me there. True, I did take driving lessons and obtain my license, something denied to female members of the Blessed Order; but I used the license mainly as an ID in stores. I was young and shy and avoided social contacts. My work and my visits to Naomi filled my life; and although it should not be for me to say it, my understanding of neurotransmitters, human biochemistry, and the human mind-body interface grew to exceed anything that I could find elsewhere in the world. I published little, but Walter Cottingham filed a torrent of patents based upon my work. He told me—strictly, I am sure, against company policy—that Tilden was more than getting their money's worth. No other company had anything remotely like the selective-memory suppression and key-memory access drugs that my work provided. Of course, the "forgetters," the "truth tellers," and the "button pressers" (Walter's terminology) still had a long way to go before they could be turned on and off in hours rather than in a few weeks; even so, he and Tilden were highly satisfied.

But I was not. It was not so much that the Order used the truth tellers on me. Rather, it was that as year followed year I became increasingly convinced that I was just getting started. The human brain and body form a wondrous and complex interacting system. The idea that a drug—any drug—might produce a single effect on the delicately balanced human brain is as preposterously naive and wrong as the thought that a combination of two medications will produce no effect beyond their separate influences. Tilden had its patents; I, mapping cross-connections, had something more: the vision of a whole new world where drugs affecting the mind affected the body that affected the mind ... on and on, in infinite regress.

As year followed year I also became more certain that the society of the Blessed Order was corrupt and rotten at its heart.

LOOKED UP. THE SUN WAS HIGH IN THE SKY. I GLANCED AT MY watch and realized that I had spent two dazed hours staring at the bright posters in the window of the bicycle shop. The hard bench seat had cut into my thighs. When I stood up, my calves felt the pins and needles of returning circulation.

I walked slowly back to the campus. Nothing was happening now that had not happened many times before. I had been to Bryceville, reported to Elder Walker, and delivered to him my latest work. He had given me test results for analysis, and he had interrogated me, in detail, while I was under the influence of drugs of my own devising. Soon the effects would wear off, and I would feel normal.

Back in my office, I again turned on the computer and cued up the hidden data files. The response is decidedly nonlinear and follows an approximate two-thirds power law. ... The words felt no less remote. However, I could now tell myself that there was a good reason. I had been away for a week; naturally my work would seem a little strange, a little less immediate.

Then why was I filled with such an alien sense of dissatisfaction?

I have a powerful memory, but somehow I did not feel that I could trust it. Something was missing. Was that real, or just more drug aftereffects?

I leaned back in my seat and stared at the screen. My office lies at the end of the corridor. I heard no sound but the soft whir of the disk drive and faint footsteps on the floor above.

I felt a strengthening conviction. During my absence someone had been in my office, started my computer, and tampered with my hidden files.

Who? That was not difficult. The Council of the Blessed Order knew exactly when I would be visiting Bryceville and away from the university. Asking me questions was only one way of making sure the secrets of my work were safe; a more direct method was to explore my records firsthand. I did not remember doing so, but under earlier dragged interrogations I might have revealed everything about my secret files.

It was easy enough to check my suspicion. I went to the central log, where records were kept of every transaction of material called from storage. The history was in reverse chronological order. My hidden work files contained nine years of notes on the anti-insolence drugs and protocols, from their earliest beginnings when I arrived at the university through to the same pages that I had been examining earlier in the day. Those last pages had been accessed on March 16—a date when I was away in Bryceville.

During my absence, representatives of the Blessed Order had been here and examined my files.

I had my answer. It was exactly what I expected, but it brought no peace of mind. I folded my arms, stared at nothing, and wondered. Since it was no surprise to me that my files would be explored in my absence, why the continued uneasiness? These records said nothing that I had not already revealed, in full, to Elder Walker and the Council of the Blessed Order.

The rhythmic click of leather shoes sounded far off in the corridor. Someone, probably Dr. Jeffers, was pacing steadily up and down. It was his preferred way of thinking. As this was mine. Sitting in a half-trance, lulled by the sound of footsteps and by the faint hum of the computer's hard drive, I listened to my inner voice. I realized that my worries had nothing to do with my work, or who had been investigating it.

My worry was Naomi. I know that a mother is not the best judge, but I had always thought her an exceptionally pretty child.

A child.

Except that on my most recent visit, that word had not been appropriate. In the six months since I had last seen her, Naomi had become a woman. Not just the young breasts, filling out her tight cotton dress; not just the way that the men of the Order looked at her—covertly, hotly, with the eyes of lust. That was bad enough, but worse was the way she responded to those looks; the knowing sideways glance of her dark eyes, the way she held herself and moved her body.

I have suggested already that I am not a stupid woman. Why, then, was I so slow to realize that Naomi, at 13 years, was close to the age when I had been taken to the Patriarch, and far less innocent than I?

I had not seen, because I did not wish to see. To me it was unthinkable that Naomi would be forced to endure what I had gone through myself, 14 years ago. Unthinkable that she would be made to commit incest, even though such a union with the Patriarch, the earthly embodiment of God himself, was sanctioned and blessed within the Order. Unthinkable, but unavoidable.

I became aware that something in front of me had changed. The computer, unattended for more than 10 minutes, had switched its display. Instead of the chronological list of files accessed, it showed a variable screen-saver pattern. A flood of multicolored bubbles rose slowly up the screen, popped, and dispersed.

The upward drift was random, and then after a while not quite so. I stared, puzzled by a twisting area where green and blue bubbles faded into each other. I was seeing letters—words. *Sharon File 32V*. Visible for a few seconds, then vanishing. Random bubbles formed and rose and burst.

I kept looking. After about half a minute, another confluence of

merging bubbles formed the words again: *Sharon File 32V*.

Very few people would be able to read that message. Even if they switched on my computer and let it sit idle until the screen-saver pattern appeared, chances were that they would see nothing. To a person with normal vision, there was no message. Only someone color-blind exactly as I was color-blind would find anything on the screen but random bubbles.

I had left a message to myself. And I had no idea what it might be.

THE HOURS FROM NOON TO EARLY EVENING WERE VERY difficult. Sharon Prostley would be gone by 5:30, but others of the lab left later and they would find it odd to see me using Sharon's work station. I could plead problems with my own computer, but I did not want anyone peering over my shoulder and offering helpful advice when I took a look at File 32V in Sharon's system.

I waited as long as I could stand. It was 20 minutes after seven when I walked for the 10th time along the corridor, found every office empty, and tiptoed into Sharon's room. Most of one wall was a long window, so even with the door closed I would be perfectly visible from the corridor as I turned on her computer.

It took a few minutes to feel my way in—Sharon's machine was organized quite differently from mine. I was forced to look in quite a few places until, in an operating system directory where Sharon was never likely to go, I found 32V. It was a text file; or, more accurately, a nested set of them.

I loaded Sharon's word processing system. Nervously, wondering what I might find, I brought in the first file.

FLGEYERO PROCIUET PSCIQCXN OFFAIJWFS.

Gibberish. Not words, not data, not anything.

Unless ... I stared, became dizzy, felt the room sway and rock around me. Memories, suppressed by my own drugs and keyed now by the button presses, flooded back.

My fingers sought and found the new data bank. Terse notes filled the screen—secret from Tilden, Inc., secret from Elder Walker, secret from everyone. Scanning them, I doubted that they would be intelligible to anyone but me. But scanning them, I saw ample reason for extreme caution.

First entry: *Penta-sild. + cyto. heptahydrate + oxidant* → strong short-term increase.

It was a tailored anti-impotence drug that I had recently developed and was testing on members of the Blessed Order. Strictly speaking, any drug was merely being evaluated before being made available to the Blessed Jasper. In practice there was never a shortage of volunteers. Elder Walker told me to bring increasing amounts on each of my six-monthly visits.

And now the subtext: *Penta-sild. + cyto. heptahydrate + GABA undergoes metamorph. → new neuro. + feedback* → 6-mo. If (sev. & dopa. levels) → pituit. down → testost. to zero. Permanent.

Interpretation: The same drug, plus gamma-aminobutyric acid, crossed the blood-brain barrier and had a neurotransmitter breakdown product. Used for six months or more, the pituitary gland would be increasingly affected and the male testosterone level would drop to zero; with that decline would go all sexual desire. Furthermore, the effect would not reverse itself after use of the drug ended.

How much did I hate the Order that had raised me? Enough to want to destroy it; but I told myself that was not my motive. All I wanted was to save Naomi. Another few months would be enough, provided that they did not take her virginity until July or August, she would escape my fate.

MARCH, WITH ITS WARM DAYS AND PLEASANTLY COOL NIGHTS, SLOWLY gave way to the baking heat of June. I worked late every night, but the sidewalk was still warm beneath my sandals as I walked home to my single-bedroom apartment.

As always, I checked my answering machine. Every week I had a friendly call from Walter Cottingham, and now and again there were

questions or comments from the scientists at Tilden, Inc. Occasionally there was a message from Bryceville. The Blessed Order did not approve of electronic devices but it did not always follow its own rules. I knew from Walter that Elder Walker telephoned him every week on financial matters. For a senior member of a sect that eschewed all worldly concerns, Cyrus Walker was surprisingly interested in money. I did not know how much Tilden, Inc. paid the Order for what I was doing, but it was far more than the cost of my room and board, plus a small discretionary amount for incidentals. That had been granted, grudgingly, after strong words on my behalf from Walker.

On June 28, I arrived home at nine. I made myself a glass of iced tea and listened to the calls. Raoul Caprice, from Tilden, with a shrewd question about an implied viral inhibitor effect of one of my recent reports. Would it work equally well for retroviruses? I wondered. Would it? Probably. I liked Raoul, or at least I liked his mind. We had never met in person. I looked at the clock and decided, regretfully, that it was a bit late to call him back on the East Coast.

A telemarketer, who must have had more spare time than sense, had left a long message inviting me to buy "heating oil futures," whatever they were. Sharon Prostley had called, apologizing for not dropping in that morning. She was PMS-y and had been in a shitty mood all day. See you tomorrow. Abner Wurstheim, of whom I had never heard, nervously wondered if I could tell him how the prostaglandins worked. He was doing a science report for high school—deadline in three days—was going to pull a certain D unless he came up with something spectacular—got my name from the college book—would love to buy me a coffee—lunch even—if I would answer a few questions.

I smiled. Abner had a real nerve, but maybe I would call him back. He sounded bright. I started to walk toward the phone when the final message started in midsentence.

"—later on. I have something tremendous to tell you. Call me on return—as soon as you get this message."

Naomi, too impatient to wait for the end of my standard message to callers. Naomi!

I was dialing before I could ask myself where she was, or how she had managed to place a call.

"Yes?" The gruff voice that answered was male.

"Naomi Stafford." I was filled with a mixture of excitement and terror. *Something tremendous*—surely that couldn't be anything to do with the Blessed Jasper. So what was it? "I mean, I would like to speak to Naomi Stafford."

"I assure you would, Rachel." It was Elder Walker. "She's right here. One moment."

"Mother?" It was Naomi, breathless but somehow more adult in tone than when I had seen her last. "I have some absolutely wonderful news. I'm going to be married!"

"Married. To—"

I found it hard to get the words out. The Blessed Jasper was father to a 10th of the children in the Blessed Order, but he had not married for 40 years.

"To the Blessed Jasper?" I said at last.

"Not Of course not, silly." Naomi's laugh, young and carefree, grabbed my heart. "Mother, I'm going to marry Elder Walker. Aren't you going to congratulate us?"

Not 90-year-old Jasper. Instead, rugged and ageless Cyrus Walker, with his bald head, barrel chest, and sly, gray eyes. The heir apparent to the leadership of the Blessed Order had chosen my daughter—my not-yet-14 daughter—to be his wife. She would join the three cowed, abject women already married to him. My work had not saved her. It came too late.

"Mother?" said Naomi. When I still could not speak, Elder Walker's voice came on the line. "Of course, we hope you will be here for the wedding. You will come, won't you?"

It was more a command than a question. Elder Walker was used to commanding.

"Ah—uh—of course, I'll—When—when will the wedding be?" I still had hope. Elder Walker, whose sexual appetite had been whis-

pered about by the women since I was a small child, would surely be one of the men taking the newest drug that I had provided. A couple more months...

"Oh, don't worry, there's plenty of time for you to get here. The ceremony won't be until Saturday."

"Which Saturday?"

"The next one. July 3."

Today was Monday. Five days from now.

"Too soon," I said, and then, to cover my mistake. "I mean, it will be hard for me to get away from the lab at such short notice. Is there any way it could be later—even a few weeks?"

"The arrangements have all been made. They can't be changed." Elder Walker's voice left no room for negotiation. "Tell people at the university that it's your daughter's wedding. They will understand."

"May I speak again to Naomi?"

"You can speak to her tomorrow. Then you'll know what day and time you'll be getting here, and we'll see how you fit into the ceremony. Naomi would like you to be part of it. See you in a few days."

I heard a click and was left with a dead line. In a few days I might be dead, too. I knew I would go to Bryceville—I had to, to talk Naomi out of it, plead with Elder Walker to wait, ask for an audience with the Blessed Jasper. Hopeless, but I had to try everything.

And I would go to Bryceville with memories of my own subversive work against the Blessed Order intact. The selective-memory suppression drug I had used on my last visit required a careful protocol and weeks of preparation.

What were the chances that I would be interrogated again during my visit? I would have to take the chance. I told myself, it had been

checked closely to see if anything had been removed and returned.

I looked at my watch. In 15 minutes the Escalante bus was scheduled to pass by this part of the highway. I had to be on it. I finally decided to leave the cylinder behind in the locked trunk of the car, and hurried back out of the arroyo.

I had cut it close. The bus was no more than a mile away, its outline shimmering in the heat, when I reached the road. I stood by the roadside and waved, and it wheeled to a halt.

"Bryceville," I said, as I climbed on board. "How much do I owe?"

"Not worth charging you." The driver, a towheaded man in his early 20s, nodded toward the road ahead. "We're almost there, you could have walked it in half an hour. But I guess it's a bit hot for that."

"Hot, and dusty," I said, and went to sit down. I was glad to see that only half a dozen other people were on the bus, and none of them had the dress typical of members of the Blessed Order.

The bus dropped me off in the usual place near the edge of town. It was just after one o'clock, so all the children were in school and no mothers were waiting. In fact, no one at all was on the street. My precaution in arriving by bus felt like a waste of time as I walked slowly toward Elder Walker's house, in its favored position next to the Patriarch's tall lodge.

Why there, and not to my mother's house, where Naomi lived? I think I wanted to know the worst as soon as possible. I approached the door of scrubbed white oak, and gently knocked. After a few seconds it was opened—by Naomi.

"Mother!" She sounded delighted and she looked wonderful, cheerful and radiant and more free of worry than I have ever been. "I didn't think you would arrive so early."

I HAD LEFT A MESSAGE TO MYSELF. AND I HAD NO IDEA WHAT IT MIGHT BE.

only three months and after all I was there for a wedding, not a research review.

I felt a powerful urge to drop everything and head at once to Bryceville. The sooner I knew the worst—all the worst—the better. A night, long and sleepless, and a brief conversation with Naomi the next morning, convinced me otherwise. I worked the next three days in the lab, pausing only for meals and brief naps and never leaving the building.

At two o'clock on Friday morning I returned to my apartment, showered for the first time in four days, and set the alarm for eight.

At nine o'clock I did something I had done only twice before in my life. I rented a car. I took it to the university, picked up a package from the lab, and eliminated a group of files from my computer, overwriting the storage areas so there was no possibility of reconstruction. Then, instead of taking the usual bus to Bryceville, I drove. On dusty roads, through sheer-sided red canyons and across stark desert scenery, the car's air conditioning fought the summer heat while I, shivering and sweating by turns, worried about Naomi and what was going to happen the next day. The more I thought about Cyrus Walker, the more Naomi's fate seemed worse than mine. I had lost my virginity to the Blessed Jasper; she would lose her whole life when she became Elder Walker's fourth wife.

A mile and a half before I came to the outskirts of Bryceville I left the highway and parked the car in a little arroyo. It would be in trouble there in the event of a flash flood, but it was well out of sight of anyone on the road. I took a knapsack out of the trunk. That was my usual luggage when I went home for visits. Then I hesitated.

Should I take the other thing, too? If I didn't, I might have no chance to come back for it. The cylinder would fit in my knapsack, but suppose that were to be searched? It never had been, so far as I knew. All it usually held were toilet articles, a couple of changes of clothing, and some small gift for Naomi. I had never

"You're living here," I said. *Too late.*

"No, I'm not. I came this morning to help with the arrangements—it's going to be a huge ceremony. Cyrus isn't here, he'll be back in a few minutes. But the Patriarch is. Come in and see him."

I would rather spend time with the Devil. But I stepped into the familiar broad hall flanked with Anasazi relics and followed Naomi to the rear of the house.

She led me not to the big living room where Elder Walker had gazed out of the window at the rolling tumbleweed, but to a little, dim-lit den. I had to wait for my eyes to adjust before I could see the Patriarch sitting in an armchair.

At once, I knew what Naomi apparently did not. I was looking at a man close to death. He was small and shriveled, a doll figure dwarfed by the massive chair. The skin of his bald head was like a jaundiced saffron egg, marked by prominent dark veins. His mouth was open, a dark toothless cavern, and his yellowed eyes stared at nothing. When they did not move as I stepped closer, I knew that he was blind.

After the Patriarch, what? The inner circle would never be open to me, or to any woman, but it was not hard to guess its decision. When the Blessed Jasper died, Elder Walker would become the Patriarch.

Looking again at Naomi, I realized that I had been wrong. She *knew*—knew that Jasper had little time to live, knew that tomorrow she would marry a man destined for supreme power within the Order. That sounded wonderful to her—but what about the life she would lead afterward, as a fourth and lowest wife? At 13, no one thinks of the long-term future.

"Can we go home soon?" I said. "I want to see your grandmother, and I would like to spend some time with you before the wedding."

"That might be difficult." She gave me the rapid, side-of-eye glance that I had seen her use on older men. "Cyrus said we'd be very busy today and it would be better for me to stay at this house tonight." She added, her chin pushed a little forward, "It will all be very proper

HOW MUCH DID I HATE THE ORDER THAT HAD RAISED ME? ENOUGH TO WANT TO DESTROY IT.

and respectable. Two of Cyrus's brothers and two of his sisters will be here."

"Naomi, we need to talk."

"We'll have plenty of time for that—after the wedding." She turned at the sound of the door opening back along the hall, and said importantly, "I think that must be Cyrus. I must make sure that things are ready for him."

She hurried away. I took another look at the Patriarch. He lolled in his chair just as he had when I arrived, apparently seeing and hearing nothing.

That seemed to be confirmed when Elder Walker breezed in. He ignored the Blessed Jasper and came straight across to me.

"Excellent, excellent." He clapped his meaty hands together. "You are early, and we need all the help we can get. Rachel, I want you to go down to the main meeting hall and tell Belinda Lee that the table arrangements for the meal have to be changed. Tell her that the Blessed Jasper—the skeletal figure made no movement at the sound of his name—"must be seated alone at a special dais, and he should not be served a meal."

"Naomi," I began. "I'd like to meet with her and—"

"Tomorrow. Far too busy today, all of us." He took my arm and led me back toward the front door. "Lots of time for the pair of you to talk tomorrow. Off you go and help Belinda. And you won't need that just now." He took my knapsack from my hand and hefted it speculatively. "We'll get it to you later."

I went cold, recalling how close I had come to bringing the cylinder. I said not a word, but as he ushered me into the street he spoke again. "One other thing, Rachel. The questioning regarding the progress of your work. We'll put that off until after the wedding. We'll do it on Sunday, all right? Hurry along now."

He closed the door before I could reply. Instead of hurrying I leaned my back against the sturdy wall of the house and closed my eyes. I was unprepared, and interrogation on Sunday would doom me. All the way from St. George I had wondered what I should do—what I could do, what I dared to do. Now, I had no choice.

SOMETIMES I WONDER WHERE I CAME FROM. THAT FEELING IS NEVER stronger than when I have spent a few hours with my mother. She was thinner than ever and very frail, but she was enormously cheerful. She asked me about my work, and after a couple of minutes of simplified description she nodded and said, "A wonderful marriage, it will be. As I've told Naomi, she is very lucky. Everyone expects that Cyrus Walker will become—"

She paused, reluctant to voice the unspeakable. *Cyrus Walker will become the new Patriarch when the Blessed Jasper dies.*

"Mother, Elder Walker is an old man, at least 60, and he has three wives already."

"Do you think that Naomi minds that? Rachel, don't you ever even look at your own daughter? Naomi is happy as can be, every move she makes says that. She wants to marry Cyrus."

"But she's only 13. She's a child."

She stared at me. "You had Naomi at 14. I had you at 14."

"But that doesn't mean it was right. To spend your whole life bearing children, until you are too old or too sick or die doing it."

She stood up, and she was trembling. "Rachel Stafford, I don't want to hear one more word. I didn't bring a child of mine into the world so that she could spout blasphemy. I didn't raise you that way, and I didn't raise Naomi that way, either. It's that goddess college you work at, and that goddess work you do. I should never have let you go. I'm going to lie down."

No use reminding her that she had had no say in the matter. My future had been decided by Elder Walker and the Council. Mother had been a nonentity, as I would also be a nonentity except that my con-

tinued presence at the university was both useful and lucrative for the Blessed Order.

At eight o'clock my knapsack was dropped off at the house by a teenage girl whom I did not recall meeting before.

"I'm a friend of Naomi," she said. She stared at me curiously, and I wondered what tales were told in Bryceville of the strange visitor who was Naomi Stafford's mother. After she had gone I looked inside the knapsack and found that the contents were not arranged as I had packed them.

By 10 o'clock it was fully dark. I waited another hour until my mother, who after our first disagreement had said no more than a few words to me all evening, was in bed and soundly asleep. Then I slipped out. The street was quiet and empty. Unless something had changed in the past few months, the summer curfew in Bryceville would last until five in the morning.

I moved slowly and tried to stay in the shadow of buildings until I was safely out of the town center. I had no flashlight with me—a failure of planning on my part—but the Moon was only a few days past full and there were no clouds. Even so, the world looked different enough at night that I was not sure I had the right arroyo until I actually saw the cat.

The cylinder weighed about 10 pounds. With more time in the lab I could have cut that down considerably, but everything had been done in a blazing hurry. I tacked the smooth, gray shape under my arm and started back.

It was after midnight when I reached the outskirts of Bryceville. In the past two hours clouds had moved in from the west to hide the Moon. The weather was changing. I sneaked again through the dark streets, knowing that the hard part lay ahead of me.

That effort could not begin until morning. I tiptoed upstairs and lay down in the same bed where I had slept as a child. Amazingly, I slept like a child. Or perhaps not so amazingly. The mind can push a long way, but at some point the body asserts its own demands.

SUMMER RAIN IN BRYCEVILLE WAS A RARE TREAT. THE WET MORNING faces that I passed on the streets all seemed to be smiling. People who recognized me paused to congratulate me. I forced a smile of my own, held my knapsack tightly under my raincoat, and hurried on.

The ceremony would be held in the town meeting hall at 11:30, followed at once by the reception in the same building. As I had expected, Belinda Lee was already there, worrying over final arrangements. She did not question my presence. Elder Walker had assigned me to help her yesterday, he must have done the same today.

I went to the rear of the hall to put down my knapsack and hang up my raincoat. Walking to the arroyo and back I had thought about the layout of the meeting hall and wondered where to put the fat, gray cylinder. It had to be hidden, but it also had to be accessible to me during or just before the ceremony.

Belinda Lee, thank God, was a worrier who liked everything planned and perfect to the last detail. She was not at all surprised when I appeared to have the same attitude.

"Right here," she said, leading me to the third long bench. "You'll enter with Naomi, then you leave her at the front and come and sit down at the aisle end for the whole ceremony."

"I just want to run through it once to make sure," I said.

Belinda's vague nod said, all right, but I've got other things to do. Women were arriving with home-cooked food, which had to be placed ready for serving after the wedding. She took no notice of me when I sat down on the bench and leaned forward to peer beneath it. The solid wooden back ran all the way to the floor, and there was a good foot of open space below the seat.

I went back along the aisle, picked up my knapsack, and walked slowly forward leading an imagined Naomi on my arm. At the dais I

paused respectfully with head inclined, then turned and went to sit at the end of the bench. I slipped my knapsack underneath and bent down as though it would not easily fit. The fat, gray cylinder had to come out. I eased it free, pushed it back a little farther, and used the empty knapsack to hide it completely from sight. Leaning far forward, I could still reach its black valve.

Two other young women, strangers to me, were at the front of the hall now. I went forward.

"I'm Naomi's mother. Elder Walker sent me to help. It smells awful nasty in here, and with the rain we don't want to open the windows. Do you have anything to make it smell nicer?"

Female members of the Blessed Order do not question male authority, even when it comes secondhand. "We've got disinfectant," one of them said. "But it doesn't smell all that good."

"How about rosewater?" the second one asked. "We've got plenty of that. Wouldn't it be better?"

"It would be perfect," I said. "Bring me all you can find. And the disinfectant, too."

They looked a little doubtful as they went off. With reason. Ananias and rosewater provide an aroma like nothing you can imagine. By 9:30 the front part of the hall had its own unique smell; neither pleasant nor unpleasant, but enough to make people sniff and look puzzled when they came in. I left, highly nervous about what I was leaving beneath the bench, and made my way through the rain to Elder Walker's house.

If I had ever imagined that I was a key player in preparations for the wedding ceremony, the illusion ended with my arrival at the house. I was hardly noticed. Elder Walker had already departed, sequestered with the rest of the Council, but half a dozen older women had been there since early morning. Naomi's attention was all on her appearance. The Order held that elaborate dress and undue attention to person was sinful, but no one seemed to have told my daughter. She was fretting about her puffy face, her imagined double chin, and the state of her complexion. And what would happen to her dress and her hair when she had to walk in the rain? I told her—truthfully—that she looked radiant and absolutely gorgeous. The idea of Cyrus Walker forcing himself onto and into that soft young body made me want to vomit.

All unions of the Blessed Order are said to be fore-ordained by Heaven. Today the weather seemed to support that. At 11:15, just as we prepared to walk over to the meeting hall, the rain stopped and the Sun emerged.

Ten of us, all women, walked through the streets with Naomi; but when we came to the open double doors of the hall, I alone continued with her on my arm. The great room was already three-quarters full. I guessed maybe a thousand people were there—this was a major event for the Blessed Order. As Naomi and I went down the long aisle I saw Elder Walker and a group of Council members writing at the end. Behind them, on the dais in a massive ceremonial chair, sat the wasted form of the Blessed Jasper.

The wedding ceremony within the Order was lengthy, and as long as I had lived in Bryceville the Patriarch had played a central part in it. As I left Naomi with the group before the dais, turned, and made my way to my place on the bench, I wondered. How could a living skeleton, blind and deaf, perform any function at all, still less deliver the customary invocation and blessing?

I should have known better. The Council had faced the problem of a failing Patriarch for a long time. As I sat down and leaned far forward as though in prayer, I heard a familiar voice: "Dearest Beloved, we are gathered here today..."

I jerked my head up. That was the Patriarch's voice, firm and clear. But the mouth of the frail figure on the platform was not moving. I glanced around and saw others behaving as if the situation was perfectly normal. Suddenly I realized what was happening. The Order, sneering at the world outside Bryceville, decrying modern machinery, suspicious of innovation, still found its own uses for technology. Someone, years ago, had foreseen the present situation and recorded the Blessed Jasper in a wedding ceremony.

I leaned down, reached underneath, and savagely turned the valve.

As I straightened up I heard the hiss of escaping gas. After a few seconds my neighbors on the bench, three women, turned in my direction. They were catching a faintly acrid smell, but the continuing ceremony masked the sound. They stared at me for a moment, saw nothing, and returned their attention to the wedding service.

The next five minutes were agonizing. I felt sure that the smell of the spreading gas would overwhelm that of disinfectant and rosewater, and someone would investigate and expose what I had done. If that didn't happen, the alternative was almost worse: In another hour, Naomi would be married to Cyrus Walker. And there was a final possibility, one I almost dared not think about. I hoped that I understood the interaction of the chemical now spreading through the air with the drugs delivered in the past year to the Order, but in the last few desperate days there had been no time to calibrate dosage or explore other possible effects. Suppose that I killed everyone in the meeting hall? It was small consolation to know that I, sitting right above the cylinder, would be the first to go.

I waited, gradually becoming convinced that I had made a gross mistake and nothing was going to happen. The voice of the Patriarch seemed to go on forever. Then one of the Council members standing right at Naomi's side raised a hand to his head, half-turned, and dropped to the ground without a sound.

THE MEN NEARBY BENT TO HELP HIM, BUT BEFORE THEY could do more than lift his head their attention was diverted to the raised dais. The Patriarch, who up to this point in the proceedings had neither moved nor spoken, uttered a hoarse, strangled moan. His skinny figure lurched to its feet, stood swaying and rigid for a moment, then fell forward head first. The crack of his bald head on the hard floor of the hall was loud enough to sound through the still-continuing invocation.

A wall of horror and disbelief rang through the hall. Council members moved to the Blessed Jasper, while dozens of other people started forward. Before they could do anything to help, another man was toppling to the floor. Then another. I saw Elder Walker, swaying on his feet, grab at Naomi's arm for support. Then he crumpled and fell. I leaned forward, thinking to close the valve, but it was too late. The women on my bench were screaming and they forced their way past, making it impossible for me to bend over. I stood up and turned around. The room was pandemonium. Some people pushed forward to help, others were heading toward the doors. And, everywhere close by, men were falling. The front of the hall was littered with their silent bodies. Other men right beside them remained standing. They stared around, bewildered and afraid.

I hoped and prayed that I was seeing unconsciousness, and not worse. I had killed the Blessed Jasper. I knew that—the three-foot fall from the dais to an impact with the hard floor would have cracked the skull of a man far less frail.

Naomi was kneeling at Elder Walker's side, crying hysterically. I pushed my way through, grabbed an arm, and tried to lift her. "We have to get out of here!" I shouted.

"No!" She would not move. "Cyrus is hurt. I have to look after him." "It's too risky. If we don't leave, the same thing will happen to us."

I don't know if she heard me, but others certainly did. I heard screams and cries of "Let me out!" The press toward the main exit began in earnest. Men and women forced each other out of the way and trampled the bodies on the floor. Again I tried to lift Naomi, but she would not move from Elder Walker's side.

I stayed with her, waiting for the crush to subside. Then, when no one was near, I did what I hated to do. The jab of the needle to the nape of her neck was not painful—barely enough to make her look up at me in surprise.

I waited for 10 seconds, then said, "Naomi, we must leave now. Come along."

She rose to her feet with a bemused expression on her face and allowed me to lead her away from Elder Walker. When we came to

the bench where I had been sitting I made a quick detour and picked up the knapsack and cylinder.

At the double doors I paused and glanced back into the hall. I had no time for an accurate count, but I estimated that 50 people remained, all near the front, all unconscious, and all men. In front of me, hundreds had turned again and were standing, unsure if it would be safe to go back in. It had begun to pour, mingling warm raindrops with tears. No one spoke to us or tried to interfere as I led Naomi away along the street.

She said nothing for a hundred yards, and then, "Where are we going?"

"Home, first. Then to where we'll be safe."

She glanced back toward the meeting hall but did not answer. I could feel her arm trembling, and I tucked it into mine. "We'll be all right, love. We'll be fine."

She stared at me vacantly. "Where is Cyrus?"

"He is fine, too. He wants me to look after you."

"And the Blessed Jasper?"

I dared not answer that. I believed that the Patriarch was dead, and I had killed him. I told myself it was not my fault. The old man ought to have been allowed to die in peace.

We had reached mother's house. I expected her to be there, until I saw that the wheelchair was missing. I hadn't seen her in the hall, but she had almost certainly been there for the wedding. I hoped that she was safe. In any case, I could not take the time to find out.

"Naomi, pack some clothes, and anything else you think you need."

"For how long?"

Forever. I would not ever dare to return to Bryceville, and I wanted Naomi to stay away.

"For a week." In that much time I would be able to explain everything to her.

"Are you taking me to where you live, in St. George?"

That had been my own first thought, until I recalled how members of the Blessed Order had known exactly how to get into my computer. We would not be safe there. We would not be safe anywhere, but I could not tell that to Naomi.

"Not St. George," I said. "We are going farther away than that. You'll get to fly in an airplane."

"Oh." Her face showed some life for the first time since the man at her side had fallen silently to the floor, but then she frowned. My poor, sweet Naomi. Today had to be a far worse nightmare for her than for me. "An airplane?"

"Drink this," I said.

She swallowed the little cup of red liquid I handed her, and after a few seconds her face cleared. "An airplane. I've always wanted to go on one. But isn't it wrong?"

"Not when it's really necessary. The Blessed Order says, in certain cases things like airplanes can be used." I glanced at my watch. Amazingly, it was not yet midday. "Are you ready to go?"

"Just about," She smiled. "Will you really take me on an airplane?"

"I will. I promise."

Three-quarters of an hour later we were at the airport. The rain had made the ground slippery but there had been no flood. The car started easily. I headed north. Four hours later we were at the Salt Lake City airport. By seven o'clock we were taking off, and Naomi was staring out of the window. She seemed blissfully content—too content.

I, in the seat next to her, worried about dosages, gripped the armrests of my seat, and tried not to think about where I was.

I, too, had never been on an airplane.

WHERE TO GO?

Although my research work had carried me electronically to hundreds of people on every continent except Antarctica, I knew no one. I had no close friends, no knowledge of how or where two people without much money could hide from possible pursuers.

I had been too desperate to do anything but run until we flew out of Salt Lake City. Only when we landed at Philadelphia at six o'clock in the morning did I call Walter Cottingham. I reached his answering machine, and left him a despairing message with the number of the phone where I was standing.

I went back to sit down. What were Naomi and I going to do? She had slept through most of our long red-eye flight with its two connections, exhausted by her nightmare morning and with a mixture of drugs still in her system. She dozed on a seat near me. Now, somehow, I had to get us to a place where we could shower and eat, and she could recuperate.

While I was still wondering, the telephone rang and I jumped to answer it, almost knocking down a woman struggling with two big suitcases.

"Walter?" I said. The woman was glaring at me, and I gave her a conciliatory smile.

"It's me. I'm home. Just sleeping. Do you know what time it is? Where are you?" He listened, then said, "Stay right there. I'm on my way. Don't worry, we'll take care of this."

I collapsed back onto my seat. For the first time in 24 hours I was able to close my eyes and relax a little bit.

He arrived an hour later, when I was beginning to worry that he wasn't coming.

"Traffic," he said. "You look tired out. How are you, witch-woman?"

He caught Naomi's puzzled expression. "It's nothing bad. Just a name I give your mother because our researchers say what she does is magic."

I had told Naomi nothing about Walter, except that he was a friend. She was staring as I introduced them, and I tried to see him through her eyes. The black mustache was long gone, together with the bow tie. I noticed for the first time a few gray hairs. In the past eight years he had been through a marriage and a "friendly" divorce, and he had two children who lived mainly with their mother.

"Did anyone from Bryceville call you?" I asked.

"Not since last week." He had picked up our two cases and was leading us to the airport parking lot. "Were they supposed to?"

"No." I was tempted to tell him everything at once, but I was afraid that if I did he would say he couldn't help and we had to go back. "There was a lot of trouble in Bryceville yesterday. People falling-down sick. Naomi and I had to get out before we caught it, too."

He turned and gave me an owl's look, but he kept on walking. When we reached the car he said only, "I think we ought to go to my place first and not to the office. Because when Raoul Caprice and the others find out you're in town they'll kill to meet you."

The 40-minute drive to the western suburbs of Philadelphia was done mainly in silence, Naomi in the back and me on the edge of my seat next to Walter Cottingham. We pulled up at an old wooden house with big shade trees in the front yard, bordered by a hedge with sweet-smelling white flowers that I had never seen in Bryceville or St. George.

BEFORE WE WENT INSIDE WALTER APOLOGIZED FOR THE MESS. HE CARRIED THE CASES UP A FLIGHT OF STAIRS RUNNING FROM THE DARK LITTLE ENTRANCE HALL, TO A BEDROOM LUXURIANTLY FURNISHED BY THE STANDARDS OF THE BLESSED ORDER. NAOMI STARED WIDE-EYED AT THE TELEPHONE, THE TELE-

SUPPOSE THAT I KILLED EVERYONE? SITTING
ABOVE THE CYLINDER, I WOULD BE THE FIRST TO GO.

sion on the dresser, the window air conditioner, and the bathroom with its variable-pressure shower head. I could see that the drugs were working their way out of her system, and I steeled myself for a barrage of questions when they did.

"Make yourself at home," Walter said to her. "I'll bet you could use a shower, right? Come down when you're all done and we'll have breakfast. I've not had a thing to eat yet this morning."

I could tell from the way he spoke that I was not included in the invitation to shower. I followed him back downstairs and through a dining room into a sunny enclosed porch lined with cushioned benches and with a solid butcher-block table in the middle.

He pulled out a chair, motioned to me to sit opposite him, and said, "All right, Rachel. What the hell is all this?"

I faced the devil's own choice: be honest, and admit to my participation with the Blessed Order in an eight-year deception of Tilden, Inc., or try to invent a set of lies plausible and consistent enough to satisfy Walter's skeptical mind.

I heard the sound of running water upstairs, and thought of Naomi. Her safety came first. Walter had to know what had happened in Bryceville—including everything that I had done.

"It will take a little while," I said. "May I have a cup of tea—caffeine-free if you have it."

WHILE THE WATER WAS BOILING, I BEGAN. The bit about the first impotence drugs was easy. Walter was actually ahead of me. He interrupted to say, "We were partly responsible for that. Our people sensed a possible gold mine of patentable medications when they read your first reports. I'd say we steered you in that direction; but you were soon far beyond anything we expected."

"And I'm sure you didn't expect what came next." I told him of Elder Walker's request—more like a command—to develop the next generation of drugs and test them on members of the Blessed Order. Walter whistled and said, "Bad news. Unapproved testing, on human subjects. Did it actually happen?"

"Yes. And there's worse."

I talked again, for a long time, and for a long time afterward he was silent. Finally he said, "Let me make sure I have this right. Recently you developed a new drug, one whose short-term effect is increased virility and sexual performance, but whose effect if taken over a period of months is the total and permanent destruction of all male sexual desire. That's what you meant by a 'phallicide agent.'"

"Yes. It wasn't that difficult."

"You can say that. I think our researchers would say it was damn-nigh impossible. And in the past week you went even further. You produced an airborne molecule that is absorbed rapidly through the skin, crosses the blood-brain barrier, and interacts with the previous drug to cause temporary insensibility."

"Yes. I hope it's temporary. Will you call Bryceville?"

"I will. How many people are affected?"

I remembered the men falling, and the floor of the meeting hall strewn with bodies. "Only males who had been taking the impotence drugs and were near enough to the gas cylinder when I opened the valve. Maybe?"—I hesitated—"maybe 50. But it could be as high as 75."

"Jesus Christ. You think you killed 75 people?"

"No!" I thought of the Blessed Jasper. "I do think I might have killed one."

"But you're not sure about the others? My God, Rachel, you stay here. It's still the crack of dawn out there, but I'm going to make a quick call this minute."

As he vanished I was left alone, my skull throbbing. I had been try-

ing to save Naomi, that had been my whole reason for everything I had done. But if I had killed people, who would save me?

The door opened again. I looked up, thinking that Walter had some question before he made the call. Standing in the doorway was Naomi, fully dressed. Her damp hair was pushed back from her face and she was ghost-pale.

She stumbled forward and stood leaning against the table. "You did it," she said huskily. "It wasn't some kind of disease, like you told me. It was you, wasn't it, you and your drugs from hell? You killed the Blessed Jasper."

"Naomi, I didn't mean—"

"And you hurt Cyrus and the others." Tears were trickling down her bloodless cheeks. "We were going to be married, it would have been wonderful, the best day ever. I was so happy. You stopped it. And you made it so Cyrus and me can never have babies. I was really looking forward to having his babies." Her voice rose. "I hate you—you've ruined my whole life."

She stood up, blundered to the door, and pushed through it. I stood up to follow, but ran into Walter on the threshold.

"She knows," I said. "She heard us. She says she hates me. I have to go after her."

Naomi was out of the house, out of the yard. I saw her walking, head down, along the street.

"No. Let me do it. If she hates you right now, maybe she'll listen to me." At the front door he paused. "One dear—the Blessed Jasper. Everyone else is all right. No one there has any idea what really happened. Cyrus Walker told me that it was the Hand of Almighty God, reaching down to raise the Patriarch from earthly life to everlasting glory in Heaven."

"What did he say about me and Naomi?"

"Not a word. Things are so confused in Bryceville, he probably thinks you're still at your mother's house."

Walter smiled at me and was gone. I expected that he would return in a few minutes and I stood at the door waiting. After a quarter of an hour there was no sign of either him or Naomi, and I went back to sit wearily at the table.

I was really looking forward to having his babies. ... I hate you—you've ruined my whole life. How could she possibly feel that way?

After an hour I moved from the table to lie down on one of the padded benches on the porch. I fell asleep there, and woke from disturbing dreams when I heard the front door open. I straightened up and looked at my watch. Mid-afternoon. At least seven hours had passed. Walter came in, and he was alone.

"You didn't find her?" I said.

"I did. She and I went over to my office at Tilden. She's upstairs now. No—" He reached out to prevent me from standing up. "Don't try to go to her. You and I have to talk."

"I have to make sure that she is all right."

"She is. Take my word for it. Look, do you want to talk to Cyrus Walker in Bryceville?"

"No!" My stomach turned over at the idea.

"That was how I thought you'd feel. So I called him, from my office."

"What did you tell him?"

"That you are here. That Naomi is here, too. Not a word about your role in what happened. So far as he is concerned, you ran away and you took Naomi because you were scared."

"I am scared."

"You don't need to be." Walter motioned me to move over and sit down beside me on the bench. "I talked this whole thing over with my bosses at Tilden, and I have their approval for what I'm about to say. When I called Cyrus Walker, I told him I knew about the way that he and the Blessed Order had violated both the law and their agreement with us by doing drug tests on humans without FDA approval. Legally, I said, we have you guys on toast. But we're willing to cut you some slack under certain conditions. We'll even keep giving you royalty payments. Only from now on, we control the work that Rachel Stafford does. The Order has to cut out all the crap about interrogating you, and they stop delving into your files."

"Did he agree?"

"Not at first. And not without a condition of his own. He pleads to have Naomi back in Bryceville. I agreed."

"Never. You can't agree to that, you have no idea what it's like there."

"You're right, I don't have any idea. But Naomi does, and she's dead keen to go back—desperate to go back."

"She's too young to make that decision. Too young to know what's best for her."

"Not too young to know what she wants. And what she wants is to

Walker: You must seek a treatment to reverse the loss of virility and sex drive caused by your phallicide drug."

If I was hesitating before, his words put an end to that. "Walter, you're crazy. I could never agree to such a thing. The Blessed Order is an abomination. Its practices are illegal and disgusting and an insult to all women. If I did what Naomi asks—something I have no idea how to do—I would be strengthening the Order."

"It looks that way to you. But I've been watching the Order from outside for 14 years, and I've seen what's happening. Members drift away. So long as the Patriarch was alive, the organization held

"I'LL MAKE YOU A WAGER. LONG BEFORE YOU AND I ARE DEAD AND GONE, BRYCEVILLE WILL BE A GHOST TOWN."

go back home." He raised his hand to cut off my response. "It is her home, you know, even if you hate to think of it that way. She loves you a lot, but she wants to go back to her mother."

"I'm her mother."

"Legality and biologically, of course you are. But the person who raised her, from the time she was two years old, is her grandmother. Rachel, I have to ask you a hard question. You had to go to Bryceville every six months, so they could check up on you. And you saw Naomi then. Now, did you ever make special trips to see her apart from that?"

"No. But I had—"

"Were there reasons why you didn't go to see her? Like, you wouldn't have been permitted to visit, or you didn't have the money?"

"I had enough money. But with my work in the lab, I was the only one who knew what to do and when to do it. I couldn't just walk out."

"Couldn't you have scheduled your experiments so that you had a couple of days, every month or two, when it was all right to leave?"

"I don't know. I didn't—I never..."

"Never tried? Rachel, I realize that Naomi means a lot to you. When you were a teenager, she was the center of your life. But it hasn't been that way for a long time." Walter put his hand on my shoulder.

"How long have you and I known each other?"

"Nearly 14 years."

"That long? God. Anyway, I've spoken to you on the phone, or I've seen you in person, an average of once a week for all that time. And you know something? When you were in Bryceville you talked about Naomi constantly: how bright she was, how pretty she was, what new things she had learned. But once you moved to St. George you hardly mentioned your daughter. It was all molecular biology, new discoveries, possible protocols, exciting experiments."

"That's what I was supposed to talk to you about."

"True. But it didn't stop you babbling about Naomi before. Rachel, you may think that I'm criticizing you, but I'm not. I'm trying to tell you who you are. You're the witch-woman. Your life revolves around the research work that you do—work that no one in the world but you *enjoys*. I hear it from Raoul, I hear it from Wolf, I hear it from all our scientists: There's only one Rachel Stafford. And Naomi, smart and nice as she may be, is nothing like her amazing mother."

"She means the world to me." I stopped, before I could say, "Everything to me." Since I was an infant I have been damned by a sense of remorseless logic. I hated what Walter Cottingham was telling me, but I could not deny its truth.

"She should not go back," I said.

"She wants to go back, and she should. But you can stay and work here—"

"Is that what you're after? To have me under your thumb instead of Cyrus Walker's?"

"—or if you prefer it," he continued as though I had not spoken, "you can return to St. George and work in your old lab. In either case, you will not be troubled by the Blessed Order. And I have to add that there is one other condition. It comes from Naomi, not from Cyrus

together. Now that he's gone, it will fall apart."

"It has lasted over a hundred years."

"So it has. And you, Rachel, who were born to the Blessed Order—and still fear it—think it will last forever. But it won't. It's diseased, and an abomination, and disgusting, all the things you said and a lot more, and I ought to be ashamed of myself for being associated with it in any way. Maybe I am. But the Order is dying." He stared at me with those dark, hypnotic eyes that had only increased in intensity over the years. "I'll make you a wager, Rachel. Long before you and I, or even Cyrus Walker, are dead and gone, Bryceville will be a ghost town. Naomi will grow up, and mature, and find her own future. Perhaps she'll make her own decision to leave. You may not like it, whatever she does, on the other hand, I'm not sure I'll approve of my own children's choices. None of my friends seem to."

He stood up. "Think about what I said. I'm going to get Naomi. I believe it's time that you and she discussed this, just the two of you."

What was there to discuss? Naomi hated me for what I had done, when all I wanted was to save her. I had nothing left.

WANDERED OVER TO THE TABLE AND SAT DOWN. AT THIS TIME OF day the sun was lower in the sky and shined through the porch windows. Its light showed two drying circles of water where the wet bottom of my teacup had rested. I reached out my forefinger and converted each of the circles into the hexagonal form of the benzene ring. The addition of other atoms and side chains felt idle and automatic, following no conscious plan. Only when I had finished did I realize that I had sketched the compound resulting from the combination of the airborne chemical gas with the phallicide.

I stared at it, visualizing the protein's complicated shape in three dimensions. It was one that could permit conformational variation—the same atomic composition, but with several different molecular shapes. Two tetrahedral and trigonal plane bonds could be interchanged, a collinear bond would become bent. The result ought to be stable. A transforming agent should exist to induce that change.

What I had told Walter Cottingham was wrong. The phallicide drug might be purged, and its effects reversed. But the nature of the transforming agent...

Within my mind, a subgroup flexed and changed from left-to-right-handedness. The whole molecule twisted and deformed. Atoms swam into view, locking into place at newly available receptor sites. Other atoms, their bonds weakened, drifted away.

I felt a rising tension. I was far from a full answer, but the search created a pleasurable ache within me like nothing else in the world.

When the door opened I did not hear it. I was not aware of Naomi's presence until she came up behind me, leamed over, and placed her soft cheek next to mine. □

HARRY TURTLEDOVE

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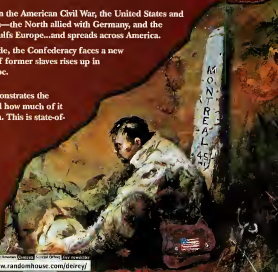
A Del Rey Hardcover
Stories That Define Imagination
A Division of The Ballantine Publishing Group

Random House Group, Inc. New York, NY 10017

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BEING FRANK

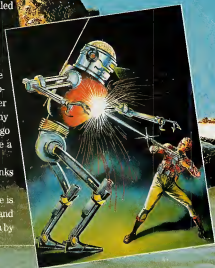
Discover the dazzling art collection of

The house's façade conceals secrets. For a start, it's much bigger on the inside than it seems from the outside; the back of the house is built onto the side of a ravine, so there is a whole, large extra story built below street level. More significantly, this is a home not just for people but also for the world's largest collection of SF and Fantasy art: over five hundred pieces, all lovingly tended and preserved by Jane and Howard Frank.

I, too, have a secret—a guilty one—as I wait for the door to open. My friends have told me about the collection's Reverence Room, so called because not one but three paintings by Chesley Bonestell hang there. If I hadn't stumbled across some of Bonestell's illustrations in childhood, I might never have become as interested in SF as I subsequently did. However, I've never seen a Bonestell original. So my guilty secret is that I want to forego the social niceties and just make a beeline for these.

Probably guessing this, the Franks leave them to the end of our tour.

The first artwork to welcome me is their dog. About 30 inches tall and made out of resin and mixed media by



Howard and Jane Frank, an SF treasure trove that is a work of art itself.



BY JOHN GRANT

Jeff Coleman. Spot has at least the advantage of showing no signs of going for the throat of the intruder as Jane, Donato's stunning cover illustration for Barbara Hambly's *Mother of Winter* beside her, explains to me how the Franks first got into this whole business of art collecting.

"The walls of our first apartment—in Berkeley, California—were papered with posters and pages from fantasy calendars, and I guess we just moved on from there. I began writing to artists care of the publishers, and some of them wrote back. We'll never forget how excited we were when Frank Utaguel, who'd done a set of pictures for H.P. Lovecraft's *Collected Poems*, agreed to sell us two of them. In fact, he wanted to sell us six, but we could only afford two."

Cost is no longer a major constraint for the Franks; I realize as we look down on their vast living room. A huge wall of glass looks out on wild countryside. In front of it a row of 3-D pieces includes a bizarre female torso by H.R. Giger. At the foot of the stairs is a favorite of mine, Barclay Shaw's *Subway Love*, used on the cover of Harry Turtledove's *Kaleidoscope*, but I'm drawn past it to two paintings I feel as if I've traveled three thousand miles specially to see. It was in a London publishing office that Jane and Howard showed me transparencies of Richard Powers' two covers for Heinlein's *The Number of the Beast*, one of which in particular had me dancing around the room. The original proves to more than live up to my expectations.



PREVIOUS SPREAD:

Chesley Bonestell's classic "Saturn Viewed from Titan." INSET LEFT: "The Mad Robot" by Robert Fuqua. INSET RIGHT: Paul Youll's "Native Tongue."


THIS SPREAD: LEFT: Visit Tom Kidd's evocative "Port Rockwell." ABOVE: Dream-like "Mistress of Viridis" by SF master Virgil Finlay. RIGHT: Richard Powers' "Number of the Beast."

I put the obvious question. "People always ask if we have special favorites," says Howard dryly, "but that's like asking, 'If you were on the *Titanic*, which of your three children would you save as the ship went down?' We love all the artworks we own."

I see the point. I've seen perhaps a tenth of the Collection so far and already too many of them are vying to be my own special favorite.

And some of the paintings have personal connotations for me, too. On the balcony overlooking the living room we've paused by Jim Burns' magnificent cover for Colin Greenland's *Sensations of Plenty*. I first saw this some years ago as a color proof being waved around by an excited Colin, who'd just received it from his publisher, and the memory always makes me grin. So I'd like this painting even if I didn't like it, if you see what I mean.

My own very personal responses to these and other artworks lead me to ask, rather nervously, what I sense will be an unpopular



question. Obviously the Collection reflects the Franks' own preferences—this is as it should be, but it also means that some eminent artists aren't represented. Are the Franks ever tempted to buy something they know is good, perhaps even of historic importance, but which they themselves don't particularly like?

Jane: "This is a trick question, right? Like, when did you stop beating your wife?"

Howard: "If we don't like looking at it, we don't buy it. Our general rule of thumb is, If we covered the signature up, would we still like the art? If we wouldn't, who cares who painted it? We're not buying for the signature, we're not buying for investment, we're not buying for posterity—we're buying it for us. If we don't like looking at it?—well, it could be Picasso's finest, but we still don't want it on our wall."

"We're both very conscious of what will and will not fit in with the Collection," Jane adds, "and we very rarely have a difference

of opinion about this."

While we've been talking we've moved back up the stairs to the dining room, to what the Franks call the Wall of Fame. On it hang paintings by Margaret Brandage, Earle K. Bergey, Frank R. Paul, Virgil Finlay, and others. I'm struck especially by J. Allen St. John's *Baccanera of Venus*, its dramatic kinetics showing St. John's deep understanding of the human body and its dynamics.

Time passes, but I lose track of it. I see so many splendid artworks that I become both overfull and at the same time hungry for more. Afterward I'll be able to remember only highlights—not necessarily the best pic-

tures on show but those which for some reason caught my particular attention. Pictures like Paul Youll's cover for Iain Banks' *Excession*, just because I know the book well, and Robert Fupnik's *The Mad Robot* (hung in the aptly named Pulp Hall), just because it makes me grin.

At last we're in the Reverence Room. It is of course the Bonestells that first catch the eye, and they hold it for quite a while, but the other paintings in the room engender that





same sense of awe, that close encounter with the wondrous that made SF readers out of us all in the first place. Chris Moore's cover for one of the Asimov anthologies is among them; I resolve never to tell Chris this. And rivaling even the Bonestells is John Berkey's *The Visitors*, the alienness of whose arriving spacecraft gives a curious dignity to the mundane earthly landscape it dominates.

In the longer—hopefully very much longer—term, what's going to happen to

the Collection after the Franks are gone? Jane replies: "We've established the Frank Foundation to insure the field will be supported in our lifetimes—and beyond, should those lifetimes be cut unduly short. More than that we can't really say. Obviously it'd be good if the Collection were kept together, but that would be difficult for an individual and we both worry about the way some institutions treat donations of this kind—not just lazily about preservation but also how they de-acquisition stuff."

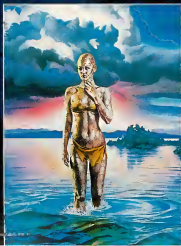
"One of the things we've done to make sure the Collection lives on," says Howard, "is write a book about it." (The book *The Frank Collection*, by Jane and Howard Frank, is to be published by Paper Tiger on October 23 at \$14.99—about \$25.00.) He shows me a set of proofs, and I see what he means. Although only about a quarter of the artworks are illustrated there, that's still well over a hundred pictures, and between them they capture a good deal of the same spirit the Collection does as a whole. "If the book sells well," Jane

notes, "we've got enough for three more volumes ... by which time we'll have collected more pictures, so maybe the publication program will go on forever!"

A while later, after coffee and a lot of chatter and laughter—for the Franks defy the stereotype of dusty museum curators and are excellently entertaining hosts—I'm back out on the street with a lot to think about. The funny thing is that I don't feel as if I've just seen a hell of a lot of individual works of artistic brilliance, although of course I have; instead I feel as if I've just seen a single artwork: the Collection itself. It's an integral piece, a sort of infinitely complicated collage. The Franks were quite right not to let me concentrate on one aspect alone, because that would have been to fundamentally misperceive this artwork they've created.

As I look back at the face of this seemingly ordinary house I realize that this is the greatest of all its secrets. ■

ABOVE: The evocative "Season of Plenty" by Jim Burns. **LEFT:** The Franks own several images by J. Allen St John, including "Buccaneers of Venus" from a 1933 issue of *Weird Tales*. **RIGHT:** Barclay Shaw's seductive "Eurydice."





TEXTURE of other WAYS

When we finally
talk to the
aliens, we'll
need to be a
little bit alien
ourselves.

BY MARK W. TIEDEMANN

Illustration by David Beck

THE MEDIA FOLLOWED OUR COURSE FROM COLONY TO COLONY all the way out to Denebola, where the Conference was held. Our ship moved magisterially into and out of dock at each port, unnecessarily slow. At first it amused us, but after 10 such stops it became ridiculous. We wanted to huddle in our quarters, close together, and ignore the hectoring questions, the lights, the monitors, the enforced celebrity.

Merril, our liaison, did his best to mollify us and satisfy them, but in the end his efforts always came up short. It occurred to me that the public nature of the project was a mistake, but when I gave this notion to the rest they shrugged together and said it wasn't our mistake.

Earth to Median, halfway to the Centauri group; on to Centauri Transit Station; then to Procyon and on to Epsilon Eridani and Tau Ceti. We bypassed Eurasia, the colony at 40 Eridani. We were never told why. But we stopped at 82 Eridani, the colony of Eridanus. Aquas, Fomalhaut, Nine Rivers, Millennium, and Pollux.

Pan Pollux proved the worst. We felt like curiosities under glass for the wealthy patrons of the resorts. Until then I'd always believed people had a finer appreciation of the difference between the merely unusual and the special. We gathered together in the lounge and formed

I looked back at the Armada ships, excited at the prospect of comparing humans and aliens.

a cluster in the center of the floor and consumed with each other, playing games of dancing from mind to mind, chasing ideas back to their sources, switching perspectives, and seeing how many we could be at one time. In the middle of this, probes managed to sneak in past our security. I'm still convinced this was allowed to happen. The Forum counted on a rich political reward from our mission and the temptation to exploit us through any media outlet available was irresistible. Poor Merrill, he believed in his job, tried ardently to meet its requirements, but there was only so much he could do in the face of the great need of human polity. We were ostensibly the saviors of humankind; it was necessary that our march toward Golgotha be witnessed.

All the probes saw, though, was a group—33 of us—sitting tightly together on the floor of our lounge, eyes closed, heads bobbing slightly, here and there drool from a mouth, the twitch of a limb, perhaps an occasional tuneless hum. What the viewing public must have thought of its savior! Their fate in the hands of—what?

WHEN THEY CHANGED ME THERE WAS NO QUESTION OF CHOICE. Seven hundred days old, you don't even realize that the world isn't part of you, much less that it doesn't care. Understanding that only discreet parts of it care is something that comes much later, if at all. It's a sophisticated distinction, this sorting out, a concept constantly threatened by the fact that even the caring parts probably don't care about you. But in time we all learn that everything around us, everything that happens, is organized into packets of information and those packets can be assembled by consciousness into something that has order and meaning. A fiction, perhaps, and it's a question of whether the boundaries that keep everything apart are internal or external. An academic question, of no real consequence.

Unless those boundaries disappear.

When they changed me—and the others, all 33 of us—several of those boundaries vanished and had to be replaced by something else, a different method of perception and ordering. At 700 days old I didn't "understand" this—none of us did—all we could do was react. There is a mark at the bottom of my memory that intrudes from time to time into my dreams, but which I assiduously avoid contemplating most of the time. I tell myself that this swamp is the residue of my reaction. I tell myself that. On the rare occasions when I conjure enough courage to be determinedly self-analytical, I think—I believe—that it is the residue of 33 reactions. Then I wonder how we all sorted ourselves out of the mix. Then I wonder if we ever did. Then I stop thinking about it.

OUR SHIP MET WITH A CONVOY HALFWAY FROM PAN POLLUX to Denebola. You never really see ships at dock, each one is berthed separately in the body of the station. Once in a while another ship leaves dock at the same time you do and you get to see one of them against the stars. I sometimes think these vessels are the most beautiful objects humans ever built. Elegant, powerful, freighted with every aspect of our natures—hope, pride, ambition, curiosity, wonder, and fear. When the convoy gathered around us we stared at the two dozen ships.

"Whales."

"No, methane floaters."

"A school of armor."

I listened to the ripple of comparisons, trying to decide which one fit best. None really did. Whales in space? Too many lines, dark masses, geometries. Methane floaters drifted with the currents of their atmospheres, virtually helpless to control direction. These moved with power, purpose, a logical order to the way they arranged themselves around us, protecting us.

"Admiral Kovesh's task force," Merrill announced. "They'll be our escort to Denebola."

"Will there be seti task forces there, too?" I asked.

Merrill frowned slightly, clasped his hands behind his back the way he did when something made him uneasy. "I expect so."

I looked back at the Armada ships, excited at the prospect of comparing human and alien.

THERE WAS A REPORTER FROM THE ARES-ÉPSILON NEWS-NET THAT kept up with us from Sol to Nine Rivers. He must have interviewed every one of us by then, some twice. On our last interview I decided to go for shock, to see how he'd react.

"The development of telepaths is a radical step in human evolution," he said. "According to scientists, we've been capable of such a step for a long time but we've refrained. Why do you think it took a First Contact situation to push us into it?"

"Fear."

"Fear? In what way?"

"They couldn't talk to the seti, so the Armada started planning for war. It's that simple. Say something we understand or we'll shoot. The Pan Humana wanted to believe the human race was beyond ancient formulas for defending the cave, but it's been centuries since words failed to convey meaning, so the old ways had been forgotten."

His eyes brightened. This was better than the prepared statements we'd been delivering all along.

"Then the seti showed up and the race panicked. Not one word made sense. You're right, we've been capable of producing telepaths—actually, the term is telelog, there's a difference—for a long time. But people are afraid of the idea. That's the only real area of privacy, your thoughts. But when the Chairman, the Forum, and the Armada realized that the most insurmountable problem confronting them with the setis was language, they seized the opportunity. It was a question of weighing competitive fears. Of course, fear of the alien won out."

"Yes, but in a very fundamental way, you're alien, too."

"But at least we look human."

I don't think his report ever made it onto the newsnets. He didn't continue on with us after Nine Rivers.

DENEBOA IS A WHITE, WHITE SUN, 43 LIGHT-YEARS FROM EARTH. IT SHEPHERDS a small herd of Jovians and two hard planets, none of which is hospitable to human life without considerable manipulation. As far as I have learned, no plans have been made to terraform.

I always wondered why Denebola. Well, it is right out there at the limit of our expansion. There are a few colonies further out, but in the pragmatic way such things are judged by the Forum they don't

count because they're too tenuous. But we didn't pick Denebola. They did. The setis.

Stars have many names and now that we've met our neighbors I'm sure the number will increase again. Denebola has three that I consider ironically appropriate. Denebola itself is from the Arabic *Al Dhanab Al Asad*, the Lion's Tail. But there's another Arab name for it, *Al Sayfah*, the Changer. I like that better; it seems more relevant to my own situation, to our situation. The place of changes, changes wrought by the place itself.

The third name? Chinese, Wu Ti Tso, Seat of the Five Emperors.

ADMIRAL KOVESH CAME OVER TO MEET US AFTER THE CONVOY arrived at the orbital platform. She was a tall, straight-backed woman with deep creases in her face and very pale eyes. I thought she looked perfect for her command.

"As soon as our counterparts signal us," she explained, "then you'll all be taken down by shuttle. The Forum negotiators are already here."

"Can we see the other ships?" I asked.

Kovesh frowned. "What—?"

"The seti ships."

"Oh. Of course. As soon as I've briefed you on procedures."

"We've already been briefed."

Kovesh looked at Merril, who seemed nervous.

"Before we left Earth," he said, "we were all given a thorough profile of what to expect. They know their mission, Admiral."

"I don't care what they were told on Earth. We're 13 parsecs out and this conference is under my aegis."

Merril gave us an apologetic look. "I see. Well, perhaps you could let them take it directly?"

"How do you mean?"

Merril blinked. "They're telegos, Admiral. It would be quicker, surer—"

"Not on your life."

"I assure you it's painless, Admiral—"

"I'm assured. The answer is no. Now, if you don't mind ..."

I felt sorry for Merril. He meant well, but I was glad the Admiral refused. Merril had an exaggerated notion of what we did. People are really a middle.

The Change was mechanistic. We aren't psychics in the traditional sense. That's why we're called telegos rather than telepaths. At infancy we were implanted with a biopole factory, a device called the logos. The logos transfers a colony of biopole, which seals itself in the recipient brain and starts setting up a temporary pattern analyzer. Very quickly—I'm talking nanoseconds—the colony establishes a pattern, sets up a transmission, and within moments the contents of the mind are broadcast to the primary logos.

But the contents!

To be honest, it is much easier for someone to simply tell me, verbally, than for me to try to make sense of all this *clatter*!

We grew up living in each other's minds, we know how we operate, but the rest of humanity? It's a miracle there's any order at all.

Still, Admiral Kovesh's reaction disturbed me.

THE IDEA MADE ELEGANT SENSE.

Humans can't communicate with the seti, and vice versa. There is no mutual foundation of language between us. Even the couple of humanoid ones have languages grown from linguistic trees sprouted

in different soils. Nothing matches up except for a few snatches of mathematics, which was how we all managed to pick one system in which to have a meeting.

That and the evident desire on the part of the seti to figure out how to communicate demands a solution.

There are only two solutions. The first will take decades, maybe centuries, and that will be the construction of an object by object lexicon. State a word—or group of words or collection of sound-signifiers, which will only be valid for those species that use sounds for communication—and point at the thing to which it attaches. How this will work with abstracts no one knows.

The other solution is us.

We smiled at each other, passed along encoded biopole of self-contradiction and mutual support, broadcast positive logos. Of course, we thought, what better way to decode a completely alien language than to read the minds of the speakers?

We learned linguistics and practiced decoding language on native speakers of disparate human tongues. With difficulty we learned to decode the patterns into recognizable linguistic components and eventually came to speak the language ourselves. Navajo, Mandarin, Kung, Russian, Portuguese, English—the hard part was finding speakers of all these languages who were not also fluent in English, official Panspeak. But there are enclaves and preserves and the subjects were found and we learned.

The only troubling part—and none of us actually brought this up, but I imagine we all thought it—was that all these languages are ultimately *human* languages. All grown from the same soil. Hardwired. At some level, then, all the same.

DETAILS. KOVESH WENT OVER THEM AGAIN AND AGAIN. ALL WE wanted to do was see a seti ship. Until we learned our lessons that would wait. We worked our way through to our reward, then stood before the viewer and gazed at the array of ships.

A small platform orbited the planet. Clouds smeared across a cracked gray-blue surface of alkalis and yttrium earths. The clouds, we learned, came from fine oxide powders blown through the lithium-fluorine atmosphere. We wondered how anything could oxidize in such an atmosphere and were told that a complex form of lichen lived underground and released oxygen through the soil. The surface constantly eroded under the breezes and picked up the deposits of oxidized metals once exposed.

The seti ships orbited close to the platform. As distinct as each appeared, all shared one common trait. They were all shells, protection, walls between life and death.

But what marvelous walls!

I had thought our ships were beautiful, and I still do, but compared to the array of alien ships they seem so ... expected. Some of the vessels actually resembled ships. Certain shapes lend themselves to travel, to containing biospheres against hard vacuum, so inevitably globes, discs, tubes, and boxes of various sizes repeat from species to species. But the lines ...

The nearest group looked like giant gourds, sectioned by sharp lines emanating from a central locus into seven equal parts. As we watched, though, a segment would drift away from the main body, float to another body, and change places with another segment.

Beyond these, we saw an enormous mass like dirty gelatin. Peces extruded, broke off, drifted among the other groups, and returned to merge with the whole. The entire surface rolled and bubbled.

Then there were the candyfloss yachts catching the sunlight and

We're called telegos rather than telepaths. At infancy we were implanted with a biopole factory.

glimmering along the countless threads that interlaced to form their comic assemblages ...

We passed impressions among ourselves, all of them optimistic. We were here to learn to speak with the beings who built these lovely ships. Because we marvelled at what they had built we knew we would marvel at who they were, at what they were. We were a short flight from the fulfillment of our life's purpose.

MARINES ESCORTED US TO OUR SHUTTLES. THE WIDE CORRIDORS OF THE SHIP SUDDENLY FELT TIGHT. We stayed close together, hands touching, and said nothing. Even through the logos all we shared were vague assurances, the soldiers' stiff presence acting like a muffle on our enthusiasms.

Kovesh waited in the lead shuttle.

"A platoon is waiting on the surface," she said. "Each group will go down with an escort of three. I'll ride this one down. All the shuttles will maintain standby once we're down, so should anything arise we'll be able to get you off quickly."

Eleven of us in each group. I missed Merrill. He rode down with a different shuttle. We sat on couches that faced across a narrow walkway from each other. One marine sat forward, the other aft, while Kovesh went up by the pilot.

There was no view outside. We held hands and looked across at ourselves and tried to imagine what happened from sounds and vibrations. We knew the moment the shuttle left the ship; we had all felt that characteristic sensation before. Then the soundless time of freefall ... then the first brush of atmosphere ... the shuttle bounced and we could hear a high-pitched whine through the bulkheads. An air leak? That meant a breach ... but no alarms flashed, except the fear transmitted back and forth through our hands, building quickly to near panic until Kovesh came back and told us we would land in five minutes. The panic subsided like water sloshing back and forth until it loses momentum and finds equilibrium.

But our equilibrium now rested on a thin layer of anxiety.

A series of harsher sounds and heavier shocks followed. I squeezed the hands I held tight and they gripped me harder until my fingers began to go numb, until everyone's fingers tingled, and passed the sensation back and forth.

Then silence.

Kovesh stepped down the walkway between us. A few seconds later the hatch opened with a loud pneumatic hiss.

We waited. I imagined us as cargo, the marines our deliverers, and passed the thought along. A few smiles came back and we relaxed a little.

"All right," Kovesh snapped, leaning into the shuttle. "Stay close. The other shuttles are down now. You'll be taken to your temporary quarters."

Unbuckled attached the shuttle locks to the environ module. We stepped into a wide chamber, the support ribs naked against the walls and ceiling, the air chilled so that we could see our breath. We came together immediately, all 33 of us, in the center of the chamber, reestablishing contact as if we had been separated for days or years. Merrill walked around our perimeter saying over and over that everything was all right, everything was fine.

I looked back to the locks then and saw marines standing at each. I searched the chamber for Admiral Kovesh and found her speaking to two men at the opposite end of the module. More

marines flanked them. Then I noticed that marines stood against the walls all around us.

Merril continued his orbit, his reassurances, until Kovesh summoned him.

AFTER THE CHANGE WE LAUGHED AND CRIED TOGETHER. Pain and pleasure became a shared thing, what one experienced cascaded through all of us. For a time there was concern that we would fail to individuate. It became necessary to shut us down from time to time, force us to form independent identities. It was a lot like learning to walk, then run, then walk and run in self-directed patterns, then integrate it all into an automatic decision-making hierarchy that worked without constant conscious monitoring. You don't think your way across a room, down a street, over a hill, or through a city, you just go in response to an abstract desire to go somewhere.

Eventually we developed individual traits, some degree of autonomy, but it never felt natural. Forced separation always hurt. Short periods of apartness were tolerable only because we knew we would be together again. Soon.

THE MEETING HALL STOOD IN THE MIDDLE OF A SODIUM-WHITE FIELD, Gothic in proportion, elegant, delicate, emblematic. Its machinery encapsulated each group in an appropriate atmosphere, clearly seti tech. The marines had told us about it. They were disturbed, a bit awed.

"This is a formal occasion," Merrill told us, "an introduction. You won't be doing anything here. We're just meeting the representatives."

We entered the central hall. Sound echoed oddly, bouncing as it did through mixed gases. It felt as if we were immersed in an invisible sea.

The setis stood arrayed around the perimeter, formed up in loose groups, some of which contained more than one species. Some were bipeds, others without visible limbs, a few with no discernible "heads," and one that seemed nothing but a tangle of articulating limbs. The fields in which they stood refracted light differently. When they moved and the fields overlapped, colors warped out of true, bent, and dazzled.

We spread out. Their designated speakers separated from their parties and approached the center. The light was coppery, liquid. Pride welled up within us. We had trained for this, been created for this, designed for this.

Sound washed through the hall. Bass, treble, mixes of tone that verged on music, then slid away into barely ordered chaos ... they spoke! We touched hands, passed our impressions down the line, always with the underthought that *this* is what we had come to solve.

The human delegates stood up, then, and read from a prepared statement. We heard little of it. The setis held our attention. This was all politics, this meeting. A show. It was being recorded, we knew, and would be used later, excellent press. The real work would be done under less dramatic circumstances. But this alone seemed worth the journey. If we could freeze the moment like this ... it was perfect, just as it was. Uncomplicated by articulation.

We gazed across the hall at each other. I felt nothing at that instant but anticipation.

We grew up in each others' minds. But the rest of humanity? It's a miracle there's any order at all.

Their torsos began where their knees should have been and their limbs looked like dense extrusions of rope.

OF COURSE IT MADE PERFECT SENSE. WE COULDN'T DO WHAT WAS required all bunched together in a group, mingled with all the sets at once. The cascade of impressions would ruin the uniqueness of each language. We had to isolate each set and work on its language apart from the rest. Perfectly reasonable.

"There are five major groups," Ambassador Sulin explained. "Bahalen, Cursian, Vohce, Menkan, and Distanti. There are numerous other allied and nonaligned races, some of them present, but from what we've been able to determine, these five are the primary language groups. Translate these and we can communicate with most of the others."

He cleared his throat and glanced at Merrill. "I didn't expect them to be so young," he said.

"It was in the precis we sent," Merrill said, frowning.

"Yes, but ... well." He shrugged and looked at us. "Each team will contain five people. Two linguists and three of you. We're not sure how many individuals will attend each set representative, but the work rooms aren't that large, so we don't expect much more on their part. Now, what we want is for you to choose a backup group among yourselves for each language. When you come out of a session, you go immediately to that group and work over what you've, uh, learned. Don't cross-reference with the other groups, please, not until we've got some kind of handle on each language."

"The sets communicate among themselves, don't they?" I asked.

"Yes, as far as we know."

"Then they already have a common set of referents. Wouldn't it be sensible to try to find that first?"

"Good question. But what we want is to have some basis of understanding for each group individually first. Then we can go on from there."

"But—"

"This is the procedure we will use."

"Uh," Merrill said, "Ambassador, it's just that the idea of separation is unpleasant for them."

"Then they'll have to get used to it."

THE OVAL-SHAPED ROOM CONTAINED SEVERAL COMFORTABLE CHAIRS, three or four recorders, and a commlink panel. A curious flower-shaped mass on the ceiling apparently provided the unique environments for the species present.

The two people assigned to my group shook our hands quickly, smiling anxiously. We resisted the urge to telelog them to see why they were so nervous. Merrill told us we had to trust them and do nothing to damage that trust.

The light dimmed when our counterparts entered. Our group had been assigned the Cursians. They were bulky, almost humanoid types. Their torsos began where knees should have been and their limbs looked like dense extrusions of rope. Individual tendrils would separate to perform the articulations of fingers, but they constantly touched themselves with them. No eyes that we could discern, but a thick mass of lighter tissue gathered in the center of the bumpy mass we thought of as its head. They wore threads of metal draped in complex patterns over their dense torsos. We were told that they breathed a compound of CO_2 , CH_3 , and CH_2N . The air seemed to glow a faint green on their side of the room.

"We need to touch them," I said.

"That's not possible," one of the linguists said, frowning. "I mean ..." She looked at her colleague. "Is it?"

"I don't think so," he said and went to the comm. He spoke with someone for a few minutes, then turned back to us, shaking his head. "Not advised. There could be some leakage of atmospheres. Cynoid and oxygen are mutually incompatible. We don't know how dangerous it might be."

"Then we can't do this. We have to touch them."

"Shit," she said. "Why didn't anybody see this problem?"

He shrugged and returned to the comm.

We spent the rest of that day's session staring across the thin line of atmosphere at each other. I wondered if the Cursian was as disappointed as we were.

THE NEXT DAY THERE WAS NO SESSION. EVERYONE HAD EXPERIENCED a similar problem with their set groups. In one case it was incompatible atmospheres, in another it was a question of microbe contaminants, in another it was just a matter of propriety. The sessions were canceled until some way of getting the notion across could be devised.

Before we could touch and share our logos, Admiral Kovesh ordered us separated.

"Once they make contact," she said, "this is how it will be. May as well start them now so they get used to it."

Merril protested, but we ended up in separate rooms anyway. The three of us huddled close together all through the night.

Admiral Kovesh came twice to wake us up and ask if we had sensed nothing, if perhaps we had picked up something after all, but we could only explain, as before, that to telelog it was necessary to touch, or the biopole could not be transferred—

She didn't want to hear that. The second time I told her that she grew suspicious.

"Are you reading me?" she asked.

"Would you believe me if I said no?"

She did not come back that night.

THREE DAYS LATER WE ONCE MORE WENT TO THE MEETING ROOM. Now there was a solid transparent wall between the Cursians and us with a boxlike contraption about shoulder height that contained complex seals joining in its middle in a kind of mixing chamber. It was obvious that an arrangement had been made.

"How does it work?"

"As simple as putting on a glove," one of the liaisons said. "Just insert your hand here, shove it through until you feel the baffles close on your arm. Self-sealing. The touchpoint chamber will only allow one finger through. Is that enough?"

It was annoying and confusing that no one had asked us. But perhaps Merrill had told them. In any event, yes, we told them, it was enough.

On the other side of the clear wall, one of the Cursians came forward. A limb jammed into its end of the box and a tendril separated and pushed through until a tip emerged into the central chamber. I looked at the other two, who touched my free hand and nodded. I put my hand into the box.

My finger poked through the last seal and the membrane closed.

Continued on page 88

By Eric T. Baker

SF's finest gaming franchises build themselves bigger and better battlefields.



ABOVE: An old friend is made new again as *Star Trek: Star Fleet Command* is on PCs for the first time. **BELOW RIGHT:** A favorite *Shadowrun* sourcebook is back in print at last.

BEFORE *STAR TREK: VOYAGER*, BEFORE *STAR TREK: The Next Generation*, before *Star Trek II: The Wrath of Khan*, back when *Star Trek* was an obscure property that brought in a small but steady stream of license fees for Paramount, a small board game company named Task Force Games got a license to produce a dice and counters (but not dice and miniatures; someone else had that license) board game of ship-to-ship combat in the *Star Trek* Universe. They called it *Star Fleet Battles* and it was a pretty big hit in the wargaming community. Players guided ships from all the races presented in the original TV series (Klingons, Romulans, Gorns, and even the Orion pirates), plus the Kzinti from the animated series. Usually players ran a single ship, tracking its damage and power usage on a single sheet of paper, plotting which shields to fully charge and what to repair and how fast to fly each turn. *SFB* appeared almost simultaneously with the advent of the personal computer, and even in the days when the best computer anyone had was a TRS-80, people started trying to create a computer version of *SFB*, without notable success. Now, 20 years later, Interplay is finally publishing the PC version of this classic board game and it has had a great deal of success. Its game is called *Star Trek: Star Fleet Command* (Developed by Quicksilver Software Inc., for Win66).

First things first. *SFB* was a board game, so *STSFC* is not an attempt to place you on the bridge of the *Enter-*

prise and let you fight space battles by twitching at a joy stick. *STSFC* is a strategy game where players plot the energy use and course of their ships while watching them fly about a map. *STSFC* is played in two dimensions just as *SFB* was, so all the ships appear on the same plane. There are no top and bottom shields to worry about and the ships don't do barrel rolls and loop de loops. *STSFC* is a game where knowing the capabilities of the various ships' weapons and systems counts far more than any player's reflexes.

The game begins with the player choosing a race from which to choose a ship. In addition to the Federation, all the original series races are there, plus two that *SFB* created, the Hydrans and the Lyrans. Having picked a race, the player then chooses to skirmish or begin a campaign. In the skirmish game, players can choose any ship and fight it against any other. In the campaign game, players are given a character who starts as a lieutenant flying a frigate, and with each successful mission is given a better ship and a higher rank.

Two things kept *SFB* interesting. One was the constant introduction of new ship types and other was the constant introduction of new weapons. *STSFC* is complete through the introduction of the dreadnoughts and overloaded weapons. The pure ships of war that filled later *SFB* expansions—light cruisers, fighters and carriers, space control and battleships—have been left out of



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ABOVE: White Wolf's *Trinity* reissue is a gamer's bargain. BELOW: Planet of Darkness is not your usual space opera.

ST.SFC., leaving room for it to expand in its next version. For now, each race has a basic frigate, destroyer, heavy cruiser, and dreadnought, and each of these basic hulls comes in four to ten different configurations. Not all ships are created equal, which keeps things interesting for many, many skirmishes or for whole campaigns.

Playing *ST.SFC.* is all about anticipation, and that is where the great fun of it comes in. The closer you let an enemy ship get, the more damage your phasers and torpedoes will do to its shields, but the same applies to the enemy. Can you get around to its weak shield? Can you keep the enemy ship back while you recharge your weapons? Can you use your wingmen to double up your attacks? You hit the enemy ship hard on this pass, but did you finish it? Does the enemy still have teeth? Pick up a copy of *Star Trek: Star Fleet Command* and find out for yourself. The answers change with every game.

Now that FASA has released the third edition of *Shadowrun*, the game's older, fundamental sourcebooks are being updated and brought back into print. It is fair to say that I have been waiting five years for the return of the *Seattle Sourcebook*, which has been out of print and unavailable since I started my *Shadowrun* campaign. Unlike the updated *Grimoire*, now called *Magic in the Shadoes*, *New Seattle* (by Stephen Kenson, FASA Corporation, Chicago, IL, 1998, 136 pgs., \$20.00) is not an expansion of the rules laid out in the basic *Shadowrun* book. *New Seattle* is *Shadowrun*. Having a *Seattle* sourcebook is almost as necessary as having the basic rules because shadowrunning in *Seattle* is the *xr* campaign. All the other settings in the *Shadowrun* universe are only reactions to the doings in *Seattle*. *New Seattle* updates the free port of the North East, moving the

city's history forward to 2060 and bringing it in line with the third edition timeline. Background essays tell how *Seattle* survived Dunkelshahn's election and assassination. Separate chapters detail the ongoing mob and corporate wars as well as the Benraku Arcology shutdown. The information that players and game masters need to bring their campaigns alive in the *Seattle* of 2060 is included. Maps accompany neighborhood descriptions that list businesses, gangs, politics, and corporations. There is a good section on the various security levels that are maintained in the city, and on the cops who enforce them.

If you are going to run or play in a *Shadowrun* campaign, even if it isn't set in *Seattle*, you need this supplement. The rest of the game world makes far more sense when you have *Seattle* to measure it against.

Trinity (by Andrew Bates, White Wolf Publishing Inc., Clarkston, GA, 1998, 330 pgs., \$14.95) has just been reissued in a handy paperback form at about half the price of the original hardcover. Despite the lower price, the paperback edition keeps the 152 glossy full-color pages of short story and background information from the original edition. You will not find a better bargain anywhere on the game store shelves than this edition of *Trinity*. *Trinity* uses WW's Story Teller System, so if you have played any of WW's other games, then you will have no trouble with the mechanics of this one. Andrew Bates and his co-authors have fast-forwarded history to 2130 and imagined a space opera future dominated by the paces, humans born with mental powers. The world order has been turned upside down by the Abarment Wars of the previous century; China and South America dominate the world's economy and culture. Men travel among the planets and has made contact with two (maybe three) alien races.

Although *Trinity* is not technically a part of the World of Darkness background that links most of the White Wolf games, it shares some structural similarities with those games. Instead of a powerful supernatural creature, players take on the characters of powerful psions. Instead of belonging to a vampire clan or a werewolf tribe, they join a psionic order.



There is a corrupt order of prisons that had to be destroyed by the others, and so. As always in a WW game, a newcomer's best friends are the glossaries and the index because you are entering a world that is brand new; even the terminology will seem strange. There are so many sides to every action and issue that the world drips with plot hooks and scenario ideas. Particularly if your players are tired of playing "white kids in space" and want to broaden their horizons, *Trinity* is a great game to do it with.

Speaking of "white kids in space" and learning curves, welcome to *Planet of Darkness* *A Starline Adventure for the Alternity Game System* (by Christopher Perkins. TSR, Inc., Renton, WA, 1999, 64 pgs., \$13.95), a new adventure in three parts for Alternity's *Starline* campaign universe. *Starline* is a true space opera campaign with many aliens, psionics, warp drives, and even magic. It is also huge, on a scale with, if not yet as fully fleshed out as, *Traveller's* Third Imperium setting. The net effect of this is that even if you are running a campaign in the *Starline* universe, the players will still have a lot to learn every time they make landfall at a new planet. On *Lison*, the Planet of Darkness, they have to learn in a hurry or they end up dead.

Lison is a tidally locked world like Earth's Moon, so one face is always toward the sun while the other is always dark. A mining world, it produces a rare ore used for star drives. A former colony world, it won its freedom from the Rignemur Star Consortium years before. To live, its inhabitants stay in underground cities and mine for oxygen. If it sounds like there are at least three story ideas in that background, that is because there are. The three parts of the scenario are meant to be played in turn and build on each other, but they can be run independently.

In the first part of the scenario, the characters get tied up in the politics and practicalities of rhodium mining. In the second part, they encounter the strange creatures that live on the surface of the planet, and in the third part, they defend the planet from a Rignemur attempt to retake it. Interesting NPCs abound, as do opportunities for heroism and combat. All three parts are very dangerous as the characters are up against NPCs with a lot of power behind them. Good gun skills and a high ESP score go along way toward evening things out. If the characters look light in either of those categories, or if they appear to be wandering off the trail, then the adventure provides the GM with his own Men in Black, the alien Gardyri, to steer them back on course. The Gardyri's super science lets them pop in and out as needed while alienness and an obscure agenda allow them to give clues without giving the game away.

Planet of Darkness is an interesting set of adventures and *Lison* is an inventive world, but Alternity is a hard system to translate into any other game. Still, if you already have an Alternity campaign, then *Planet of Darkness* is well worth adding to your materials. □

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TELEVISION

Continued from page 22

lowing the Littleton shootings. The fact that *Harsh Realm* has as its lead-in the new *Ryan Caulfield*, about a 19-year-old Philadelphia street cop fresh out of high school, lends credence to the notion that Fox wants to slant *Harsh Realm* to a young audience (compared to Fox's grim one-two punch last year with *Brimstone* leading in for *Millennium*). Fox is reportedly very happy with the *Harsh Realm* pilot, however.

Also on Fridays at 9 PM, ABC's returning *Sabrina*, the *Teenage Witch*, and CBS's new *Now and Again*, about a middle-aged insurance agent who gets a Nikita/Steve Austin treatment when he's nearly killed in a freak accident and gets an offer from the government: they'll rebuild him and give him a body 20-years younger than the one he had if he'll become a covert operative. Eric Close stars.

Fridays at 9 PM, The Sci Fi Channel brings back *Sliders*, which will continue without Jerry O'Connell and his brother, Charlie O'Connell. Reportedly Jerry wants to work on more film projects. Joining the show are Robert Floyd and Tenbi Locke.

Saturdays mark the return of *Early Edition* on CBS (8 PM), and *The Pretender* (9 PM) and *Profiler* (10 PM) on NBC.

Sundays will bring back Matt Groening's welcome animated boot to the head of mil-



Editor Neil Patrick Harris and writer Tony Shalhoub go Stark Raving Mad.

lennial positivism, *Futureman*, (Fox, 8:30 PM) followed by what may well be the last season of *The X-Files* (Fox, 9 PM). It seems David Duchovny will not renew his contract after season 7, and Gillian Anderson is ready to call it quits. Fear not, X-Philes. Chris Carter is developing *The X-Files* as a movie franchise.

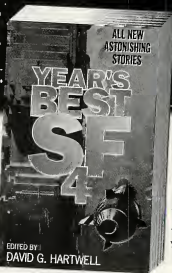
In syndication, *Hercules: The Legendary Journeys* is as good as over. There will be eight new episodes come fall, and that'll be it.

Reportedly, Kevin Sorbo will be hanging up his trademark leather pants to help develop two new syndicated series with Majel Barrett-Roddenberry for Tribune Entertainment: *Gene Roddenberry's Andromeda* and *Gene Roddenberry's Starship*. (*Starship* had been initially announced as a possible all CGI series to be created at Vancouver's Mainframe Entertainment). *Xena* will return in the fall, as will *Gene Roddenberry's Earth: Final Conflict*. The fate of *The Crow: Stairway to Heaven* is up in the air as of this writing.

Mid-season replacements in the works include: James Cameron's *Dark Angel*, set in a dystopic 21st-century San Francisco and starring Jessica Alba as a genetically enhanced prototype created by the military; the animated *God*, the *Devil* and *Bob* about a regular Joe picked by God to prove that mankind is worth saving; and *The Others*, about a psychic college girl recruited by a secret organization that explores the occult. On the far horizons, look for a James Cameron mini-series adaptation of Kim Stanley Robinson's *Mars* trilogy in 2000 or 2001; a syndicated *Dragonriders of Pern* series in 2000; a non-CGI cartoon series, *The Adventures of Buzz Lightyear*, directed by *Stressed* Eric creator, Steve Loter; and an Alliance Atlantis and Tribune Entertainment *Benjamin* syndicated series. For those of you who hate long movie theater lines, *The Phantom Menace* should hit the Fox network during the November 2000 sweeps. □

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ONLY HUMAN

Continued from page 38

"Tell that to the Commission," a Secret Service agent said.

"What's going to happen to us?" the senator asked.

"You're going to leave peacefully and go back to your normal activities," the Secret Service agent said. "I wouldn't recommend running for reelection, though."

"You aren't going to do anything to us?"

"What would we do? You think we want headlines about aliens trying to kidnap the president?"

"I suppose not." She looked forlornly at the president. "Our apologies, sir," she said. "We meant no harm."

"No harm done," he said, waving a hand in dismissal. "If it's any comfort, these boys do keep an eye on me, just in case I do somethin' stupid." He gestured at the Secret Service agents. "We're taking it one step at a time."

"Yes, sir."

"And while you're here, I'd just like to say somethin'," the president continued. "Maybe it's just me bein' a little too proud, but I like to think we would have managed not to blow ourselves up even if you fellows hadn't interfered. You comin' in and secretly takin' over the governments of half a dozen countries the way you did was a lowdown sneaky thing to do, and you didn't have any right to do it. It came as one hell of a shock to me when I found out just what all you'd done, and I was madder 'n hell at first."

"But..." the Speaker began.

The president stopped him with a raised hand.

"That said," he said, "I gotta say, you kept up your end of the bargain. You could've stomped us all flat, or let us blow ourselves up, and you didn't, and now that your High Commission's decided we can be trusted, you're pullin' out, little by little. It's plain you meant well. So while I can't quite bring myself to say thanks for takin' over the world, I *will* say that I appreciate the thought. Now, get out of here and let me get some sleep; I've got a lot of work to do in the morning."

And with that, he turned away, while the Secret Service agents escorted the two intruders out of the room.

As the two aliens made their way through the secret network of tunnels under the Washington streets, back toward the workshop where they had left their human disguises, the Speaker said bitterly, "It's all very well having infiltrated the Secret Service, and telling the president the truth, and that was a pretty speech he made, but I still don't like it. When you come right down to it he's still only human."

The senator glanced at her companion, and would have shrugged if she were wearing shoulders.

"They could do worse," she said. □

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TEXTURE

Continued from page 81

firmy just below the second joint. The air in the chamber was cold and my skin prickled. I stared at the Cursian "finger" as it wriggled slowly toward the tip of my finger. I concentrated a biopole discharge there and when it touched me it was almost as if I could feel the colony surge from me to the Cursian. Imagination, certainly; I had never been able to "feel" the transfer. The only way any of us ever knew it had happened was when the colony established itself and began sending back signals.

There should have been a short signal, a kind of handshake that let us know it had been a successful transfer. I waited, but felt no such impulse.

I gazed through the layers of separation between us and wondered if it was feeling the same sense of failure. To come all this way, to prepare all your life for this moment, and then to find that for reasons overlooked or unimagined you have been made for nothing ... I thought then that there could be no worse pain.

I was wrong.

ONCE AN ANIMAL WAS RELEASED AMONG US, A DOG, I don't know if it had been intentional or an accident. You might be surprised at how many accidents happen in a highly monitored, overly secured lab. It seems sometimes that the more tightly controlled an environment is the more the unexpected happens. But in this case, I'm inclined to believe it was

came as a shock. The sheer terror it exuded surprised us, overwhelmed our own sense of security. When they took it away to be "put down," as Merrill called it, several of us still wept uncontrollably from the aftershocks.

Batteries of tests followed to make sure no damage had been done. But the dog was dead.

IT CAME GRADUALLY, A VAGUELY PUZZLED SENSATION, a what, where from, *who?* series of impressions. For a moment I nearly lost my despair.

Then a wave of nauseating rage washed through me. Revulsion, anger, rejection—like a massive hand trying to push me away. But I was chained to it and the more it pushed the more pain came through the connection. Sparks danced in my eyes. My skull felt ready to split and fall open. When I opened my eyes, I saw that I had slid to the floor, my hand still shoved through the trap.

The Cursian rocked back and forth and side to side, serpentine digits writhing. Suddenly, it reared back and drove one of its limbs at the transparency. The impact shook the wall.

I heard swearing around me, terse words, orders, but none of it made sense. My language was gone. Words were only sound. In my head I knew only a vast and sour presence and I remembered the dog and its terror and I tried to stand, to pull my hand away.

I thought I had failed before. Now I knew what failure felt like. But it wasn't my failure.

I thought then that there could be no worse pain. I was wrong.

intentional, despite the reactions of our caretakers—especially Merrill—when they discovered it.

The animal was obviously frightened. It didn't know where it was or who we were. We thought perhaps that it was a seti, that maybe one had volunteered to come to us as a test, but that was quickly rejected when we accessed the library. The dog was only a pet, an assistant, a symbiote that had accompanied Homo sapiens sapiens on the long journey to the present. It whimpered a little when we cornered it and looked at us with hopeful, nearly trusting eyes. It needed assurance. It needed to know that it was welcome, that we would not harm it. We only intended to give it what it wanted.

The brief immersion in its thoughts

Hands grasped my shoulders, another took my arm. I was pulled away. My hand came free, but it felt cold and numb. I stared at the seti. It extracted its own limb and stumbled away from the transparency and nearly collapsed on the floor. It looked tormented.

"D-don—don't—" I tried to say, but my siblings were holding me and the biopole bled into them.

One screamed. The other jerked away, mouth open.

"Get them out of here!" someone shouted. "Now!"

More people crowded into the chamber and I was lifted onto a gurney. I couldn't stop feeling the awful violation the Cursian had emptied into me. I wanted to sleep. I wanted to die.

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IT HAPPENED TO ALL OF US. IT GREW worse as we came together.

Logos spread back and forth, colonizing and broadcasting. We didn't understand and that complicated it. We sought comfort from each other, but the enigma of alien rejection compounded, interfered.

It didn't end until we were sedated.
And then there were dreams ... dreams of anxiety and suspicion and insult ... dreams of dying ...

THEY SHOWED US VIDS LATER. I DON'T LIKE WATCHING THEM, but they make us see them, those of us who lived. The sets reacted. It's obvious now, after the fact. They recoiled. That's the only word I can think of that fits. Recoiled. Some of them looked dead. Five of us died. Others wouldn't stop screaming.

There are images in my head and I'm frightened to share them. I look at my companions and can see that they, too, contain things they will not, cannot share. It hurts. I understand Admiral Kovesh's reaction to the logos. Nobody told us it might be like this. Perhaps we should have suspected because of the dog, but we had all dismissed that because it had been so disadvantaged compared to us, its mind couldn't comprehend what was happening. But we know now. It was so simple an oversight—or perhaps not, perhaps it was assumed to be impossible, part of the dilemma of the situation: How can you ask permission when you don't speak the language? That was, after all, our task—to ask them things. But no one had tried to tell them that we would invade their minds in order to do so. And when we did, they scurried us.

We can never live in each others' minds again. We are separate now because we fear each other. We fear what we contain. We fear what we might give ourselves. We do not understand.

The set ships had moved into positions of defense by the time the marines got us back up to our ship. They were frightened. We had hurt them. They had hurt us. We will all of us have to learn a new way to trust.

Perhaps, I think, we fulfilled our mission anyway. We had believed we shared nothing with the set, but that's wrong. We share fear. Humans have been basing relations on that for millennia.

A door opens and a marine comes in. She switches off the vid and pulls out a notepad.

"Admiral Kovesh says we have to see to it you get whatever you want," she says. She smiles at me and I'm startled at how pleased I am. "What's your name?" she asks.

I feel my smile fade.
"Name?" □

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By Cory Doctorow

Del Rey's *Online Writers' Workshop*, at <http://www.randomhouse.com/delrey/workshop/>, is an idea whose time has come. Using an attractive and well thought out interface, the Workshop allows writers to post short stories and novel excerpts so that other writers (as well as Del Rey's editorial staff) can comment on them. The site is populated with talented writers and thoughtful critiques, and contains several classy touches, including essays from SF luminaries on various aspects of writing and critiquing.

Papyrus (<http://www.papyrus-fiction.com/>) is an interesting beast. It's an online, story-a-week magazine that's paying rates comparable to the pulps, attempting to finance the project with banner ads. The quality of the fiction is pretty variable—there are a lot of the ticks that one expects to see in semi-amateur work. But there are some buried treasures here, top-notch work by undiscovered talents. And the price is right.

The Web abounds with news sites aimed at writers. *Inscriptions*, at <http://come.to/Inscriptions> is one such site. It does a good, workmanlike job, especially when it comes to up-to-the-minute coverage of publishing news.

There's a new ring worth a mention. *Science Fiction Book Review*, at <http://www.webring.org/cgi-bin/webring/ring=stbook> review list is a tremendous collection of sites filled with thoughtful critiques and crazed rantings on written SF.

Once in a lucky while, a writer comes along who turns your ideas about SF on their heads. Neal Stephenson is one such—from *Snow Crash* and *Diamond Age* to the pseudonymous *Interfuge*, Stephenson writes books that challenge and delight. His latest, *Cryptonomicon*, is both his most ambitious and most successful work; the site at <http://www.cryptonomicon.com/> is equally successful. The featured essay, "In the Beginning..." has made a significant buzz in geek circles and is a primer on the convergence of technology and sensibility.

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Skeptics sneered. Market analysts quirked their eyebrows. But consumers and investors went ga-ga over online shopping. *Amazon* and numerous other online booksellers are making serious gains in the retail-scape. And

a whole raft of secondary applications is opening up. The most original of these is *MyCause*, at <http://www.mycase.com/>, which allows you to choose from hundreds of charities to support while you shop online. Pick a charity, visit a vendor, and 3 to 12 percent of your purchase will be automatically

donated to the good cause of your choice. Nest! Thanks to writer Pamela D. Hodgson for this tip.

First, there was *Yahoo!*, the massive database that lists, categorizes, and reviews millions of Web pages. Now, there's *About* (formerly *MiningCo*), a site that uses human experts to create massive portals to various kinds of content. C. Corey Fisk, *About's* guide to Science Fiction and Fantasy books, is a thoughtful, thorough, and quirky researcher. Her guide, at <http://fantasy.about.com/index.htm> is a terrific starting point for your Web excursions.

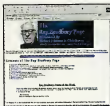
David Hartwell—editor, polemicist, fashion victim—has a marvelous site at <http://www.panix.com/~dgh/>.

Hartwell's projects—*The Year's Best Science-Fiction* and *The New York Review of Science Fiction*, to name just two—have marked him as an influential and important thinker in the field. But David's contributions to the theory and practice of

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